

# **AIRCRAFT PROCUREMENT**

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## **HEARINGS**

BEFORE THE

**PREPAREDNESS SUBCOMMITTEE NO. 1**

OF THE

**COMMITTEE ON ARMED SERVICES**

**UNITED STATES SENATE**

**EIGHTY-THIRD CONGRESS**

**FIRST SESSION**

**ON**

**CONTRACT AWARD OF C-119 CARGO**

**PLANES BY AIR FORCE**

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**JUNE 2, 3, 4, 5, 23, AND 24, 1953**

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Printed for the use of the Committee on Armed Services



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## AIRCRAFT PROCUREMENT

TUESDAY, JUNE 2, 1953

UNITED STATES SENATE,  
PREPAREDNESS SUBCOMMITTEE No. 1,  
ARMED SERVICES COMMITTEE,  
*Washington, D. C.*

The subcommittee met, pursuant to call, at 10 a. m., in room 212, Senate Office Building, Washington, D. C., Senator Styles Bridges (chairman) presiding.

Present: Senators Bridges, Flanders, Duff, Byrd, and Symington.

Also present: Fred Rhodes, chief counsel; James Anton, special counsel, and Harold M. Devlin, accountant.

The CHAIRMAN. The hearing will come to order. First the chairman wants to read a short prepared statement on these hearings. Copies will be distributed.

The purpose of these hearings by the Subcommittee on Aircraft Procurement of the Senate Armed Services Committee is to inquire into the matter of whether the country is getting a dollar's worth of defense for each dollar spent in the purchase of airplanes. On the basis of the facts uncovered, we believe the appropriate authorities will take corrective action. The resulting efficiency from such action should strengthen America's defense and security in these times of crisis, and through the resultant efficiency and productivity of performance the benefit should go to the American taxpayer.

The makeup of the Senate committee, undertaking this vital task, is itself a validation of the integrity with which the purpose of this committee is to be carried out. My distinguished colleagues, members of this subcommittee with me, bear witness to the good faith of this committee. We are interested in facts as a basis for action, not in merely performing an investigation.

There are many hearings going on both of Senate and House committees today. The work that this committee is doing is vitally important, because in this new administration we are reevaluating and reexamining many of the elements that relate to our national security and our national welfare. If we are to insure an adequate and effective Air Force, we must also insure that wasteful and inefficient practices are eliminated. We must insure justice to our country, the taxpayer, and the business system upon which our national strength rests.

National security and efficiency are not mutually exclusive. To have one does not mean that we cannot have the other. It is our purpose to secure both.

Our committee intends to proceed to the goal I have just stated to you on an objective basis. We intend to get them for the country regarding awards to producers and the performance of these contracts.

We intend to evaluate price relative to performance, to examine whether there is waste, extravagance, or inefficiency in the companies which are suppliers to the Air Force.

In other words, we are going to look into the record.

In September and October 1952 reports appearing in the newspapers throughout the country indicated that the Kaiser-Frazer contract with the Air Force for the production of C-119 cargo planes was about to be canceled because of excessive costs. These reports reflected that the Air Force had estimated the Kaiser-Frazer C-119 unit cost at \$688,365 as compared to the \$260,000 unit cost to Fairchild Aircraft Corp. C-119 plane.

After consulting with Senator Lyndon B. Johnson of Texas, chairman of the Senate Preparedness Subcommittee, it was agreed that staff members should be assigned to conduct a preliminary investigation into this program. At the same time, I requested the Secretary of the Air Force to furnish certain facts concerning the C-119 production contract.

The reports coming to the committee from both sources were alarming. Instead of the estimated cost of \$688,365 per unit to Kaiser-Frazer, it developed at that time that the unit cost would be approximately \$1,200,000.

Our preliminary inquiry further revealed that the development of the C-119, the Flying Boxcar, commenced in 1945 with production contracts being awarded to Fairchild in 1947. To date the Air Force has accepted 615 units from Fairchild.

On December 15, 1950, a decision was reached to award a contract for the production of 134 C-119 planes to the Kaiser-Frazer Corp. as a second source supplier. Under the contract as presently amended, the number of planes calls for a total of 159.

It was of some concern to the committee that a decision of this nature was reached within a span of 10 days.

Furthermore, the investigation showed that the Kaiser-Frazer proposals were submitted on December 19, 1950—4 days after the decision had been made to award the contract to Kaiser-Frazer and 1 day prior to the award of the letter of intent. The committee has further information that the Fairchild Corp. was vigorously opposed to the Air Force award of the Kaiser-Frazer contract and yet had to provide technical assistance and engineering data to Kaiser-Frazer as well as a large number of parts.

As a further result of its investigation the committee further noted that the Kaiser-Frazer C-119 program was being phased out 7 months after its initial award. It appears unreasonable to the committee that a program which was strategic and urgent in December 1950 suddenly became less important in June 1951, when the Air Force decided to phase out the Kaiser-Frazer contract.

On February 20, 1953, the Preparedness Subcommittee No. 1, Aircraft Procurement by the Air Force, was formed by Senator Leverett Saltonstall, the chairman of the Senate Armed Services Committee. At this time I would like to introduce the members of the subcommittee, and here with me at this table at my left is Senator Duff, and at my right is Senator Symington. For the record, I want to have inserted a copy of a letter I sent to Air Force Secretary Harold E. Talbott, dated May 26, 1953, and his reply of May 29, 1953.

(The documents referred to are as follows:)

MAY 26, 1953.

Hon. HAROLD E. TALBOTT,  
*Secretary of the Air Force,  
The Pentagon, Washington, D. C.*

MY DEAR MR. SECRETARY: In November 1952, at my urging, the chairman of the Senate Preparedness Investigating Subcommittee, Senator Lyndon B. Johnson, instituted an investigation into the procedures and methods used in the procurement of airplanes. The investigation has continued since the above date. At that time my attention was drawn to this matter from numerous newspaper stories alleging certain cost discrepancies between two manufacturers of the same plane known as the C-119 cargo transport.

On February 20, 1953, the Preparedness Subcommittee No. 1, Aircraft Procurement by the Air Force, was formed by the chairman of the Armed Services Committee. The members of the subcommittee are as follows: Senator Styles Bridges, chairman, Senator Ralph E. Flanders, Senator James H. Duff, Senator Harry Flood Byrd, Senator W. Stuart Symington.

At a recent meeting of the subcommittee it was agreed that hearings on the C-119 airplane contract awards would commence June 2, 1953. During the hearings the committee will elicit testimony concerning procurement procedures and methods, including supervision and administration of contracts and the effects of the Department of Defense policy in broadening the industrial base. We are also interested in hearing whether our present program is best meeting defense needs and how to avoid waste, duplication, and excessive costs to the Government.

In this connection we anticipate hearing the testimony of Lt. Gen. Orval R. Cook; Maj. Gen. Mark E. Bradley; Col. Harley S. Jones; Sidney Solomon, Willow Run auditor; Edward Meek, Fairchild auditor; R. D. Benson; as well as any others that the Air Force and the committee may deem it necessary.

The details as to the time of appearance for these persons will be worked out between counsel for the Air Force and the subcommittee.

I know the problems set forth in this letter are of deep concern to you and I feel certain that through our mutual cooperation many constructive recommendations can be made as a result of these hearings.

I invite you to submit any suggestions you may have concerning these hearings, and I assure you they will be duly considered.

With best wishes.

Sincerely yours,

STYLES BRIDGES,  
*Chairman, Subcommittee on Aircraft Procurement.*

DEPARTMENT OF THE AIR FORCE,  
OFFICE OF THE SECRETARY,  
*Washington, May 29, 1953.*

Hon. STYLES BRIDGES,  
*United States Senate.*

DEAR SENATOR BRIDGES: In reply to your letter dated May 26, 1953, I assure you that you will have our full cooperation in the forthcoming hearings to be held by your Preparedness Subcommittee No. 1.

It is my understanding as set forth in your release of May 19, 1953, that the first phase of the committee's activities will be to hold hearings, beginning June 2, on the procurement of the C-119. The witnesses which you requested in your letter will of course be present.

The studies which you propose to undertake after these hearings are broad in scope. As you outline them, they would include procurement procedures and methods, and the basic policies underlying procurement, as well as the fundamental question of the adequacy of our current program to meet defense needs. As you proceed, you will no doubt wish to specify particular fields of inquiry which appear to be most directly related to the achievement of effective air power on an economical basis. We would then be in a position to assist the committee in a continuing and effective manner.

Sincerely yours,

HAROLD E. TALBOTT.

The CHAIRMAN. During the hearings the subcommittee will call as witnesses the following in an order to be determined:

1. Mr. John A. McCone, former Under Secretary of the Air Force for Procurement.

2. Mr. Roswell Gilpatric, former Under Secretary of Air Force Procurement.

3. Lt. Gen. Orval R. Cook, Deputy Chief of Staff, Materiel, Air Force.

4. Lt. Gen. K. B. Wolfe (retired), former Deputy Chief of Staff, Materiel.

5. Maj. Gen. Mark E. Bradley, former Director of Procurement and Production, Air Materiel Command.

6. Col. Harley Jones, Director of Procurement and Production, Air Materiel Command.

Mr. M. F. Mautner, supervisory accountant, Air Force, Eastern Procurement District.

8. Mr. Sidney Solomon, Air Force resident auditor, Willow Run.

9. Mr. C. D. Seftenberg, Air Force Deputy for Contract Financing.

Our first witness this morning will be Mr. John McCone, former Under Secretary of the Air Force. At this point in the record I would like to insert a biographical sketch of Mr. McCone which reflects that he was nominated for the office of the Under Secretary of the Air Force on May 31, 1950, confirmed by the Senate on June 7, 1950 and took office June 15, 1950.

(The biographical sketch referred to follows:)

Mr. John A. McCone was born in San Francisco, Calif., on January 4, 1902. He was graduated from the University of California with a bachelor of science degree in 1922.

He began as construction superintendent of Llewellyn Iron Works of Los Angeles, Calif. In 1929 he joined Consolidated Steel Corp. of Los Angeles as superintendent and in 1933 was named executive vice president and director of that organization.

Mr. McCone left Consolidated Steel in 1937 to form the Bechtel-McCone Corp. of Los Angeles, a firm engaged in the design, engineering, and construction of process plants, refineries, and powerplants. A major project of the Bechtel-McCone Corp. was the building of the Birmingham Modification Center at Birmingham, Ala., for modification of B-24's and B-29's in World War II. It was one of the largest modification centers operated by the Air Force during the war.

Mr. McCone was a member of the President's Air Policy Commission. In this capacity he assisted in the drafting, particularly on the military phases, of the Commission's report Survival in the Air Age, issued on January 1, 1948.

He was nominated as Under Secretary of the Air Force by President Truman on May 31, 1950. He was confirmed by the Senate June 7 and sworn into office June 15, 1950.

At present Mr. McCone is president and director of Joshua Hendy Corp., Los Angeles; chairman of the board, Pacific Far East Line, Inc., San Francisco.

The CHAIRMAN. Mr. McCONE, if you will come up and take the witness chair, we will proceed.

Do you solemnly swear that the testimony you are about to give will be the truth, the whole truth and nothing but the truth, so help you God?

Mr. McCONE. I do.

The CHAIRMAN. Mr. McCone, it is a pleasure to have you here this morning before the committee. You have been before the full committee many times during your service as Under Secretary.

The purpose of the committee is to find the facts and to look at the record in the public interest and take action to remedy any bad situation we find if it needs remedying.

I understand that you would like to present a brief statement before you submit to questioning?

**TESTIMONY OF JOHN A. McCONE, FORMER UNDER SECRETARY  
OF THE AIR FORCE**

Mr. McCONE. I would, Mr. Chairman, because I think the statement will be of assistance to the committee, and its objectives as outlined. I would like to say, before reading my statement, that I believe the objectives of the committee are constructive and good will come out of the work of this committee in this particular field and others that you will investigate.

May I read my statement?

The CHAIRMAN. Certainly, sir.

Mr. McCONE. Gentlemen, I am advised that this committee is inquiring into Air Force contracts for procurement of the Fairchild C-119 aircraft and that you have called me to testify.

I was Under Secretary of the Air Force from June 1950 until October 1951. My responsibilities were, of course, Air Forcewide, but because of my background of industry, procurement, and production of aircraft became my particular concern. Moreover, I had studied this area intensively in 1947 as a member of the President's Air Policy Commission; and later as a special deputy to Secretary Forrestal in the newly organized Defense Department.

In discussing the C-119 contracts, and particularly those with the Kaiser-Frazer Co. at Willow Run, I am dealing with the award of the contracts and not the performance of the contractor. I regret very much to hear that its performance is reported as not satisfactory.

Negotiations for the contracts in question began in December 1950. They were incidental to the broad buildup of the Air Force that was already in motion at that time. They reflected national and Air Force policies, generated by the crises of the Korean war and other ominous international developments.

Four considerations bore on these particular contracts and, indeed on the whole Air Force procurement program as it developed during this period:

1. President Truman, in his state of the Union message on January 8, 1951, after having declared a national emergency, pronounced the policy to be followed by the Air Force when he said, and I quote:

\* \* \* Our present program calls for expanding the aircraft industry so that it will have the capacity to produce 50,000 modern military planes a year.

\* \* \* We are not now ordering that many planes \* \* \* and we hope that we never have to, but we mean to be able to turn them out if we need them.

2. The Secretary of Defense, in a statement entitled "Broadening the Industrial Base of the Procurement Program," directed the services to spread contracts across industry as widely as possible; and to accomplish this by the wider use of negotiation versus formal bidding procedure; to avoid concentration of contracts with a few leading suppliers; to utilize existing open industrial capacity to the maximum, and, among other things, to utilize available manpower in distressed employment areas. The idea was simply this—it is better to arrange production where plant capacity is open and labor readily available, than to build up defense plants in drumtight labor markets and suffer the attendant consequences of reckless bidding for every available man, and also bear the costs involved by the migration of workers.

3. It was the agreed policy in the National Production Authority, the Defense Department, and the Air Force to establish multiple sources of supply for all important items. This policy was intended to be a protection against complete loss of production of any needed article from bombing, sabotage, or other enemy action.

4. The Air Force was itself in the process of a rapid buildup of its forces in being. From an authorized strength of only 42 wings in June 1950, the desired force level had been raised during the intervening months, first to 58 wings, then to 69, then to 95 and, eventually, to 143.

The industrial base from which the Air Force began its post-Korean growth was unsatisfactory, to say the least. The aircraft industry had shrunk to a bare minimum of operating plants. Many of these plants were inadequately equipped. Our production of combat aircraft was substantially under 100 a month.

Practically all of the Government-built plants had either been sold or were held in idle status—tools removed, organization liquidated. New requirements demanded the expansion of existing plants, the bringing into production of idle plants, and the employment of non-aircraft manufacturers for the production of airplanes, engines, electronic equipment, and instruments.

The controlling policy was essentially this, that while the Air Force undertook to build up and equip its forces in being in the shortest possible time, it would simultaneously provide an industrial base possessing a reserve potential capacity twice and in some instances three times that which was called for by the scheduled production. I was in accord with this policy and supported the actions taken.

Now, as regards the Fairchild C-119: This aircraft is a two-engined, propeller driven, medium military transport. It is usually operated by the Air Force in support of the ground forces for transportation and parachute operations.

The plane was developed, designed, and built by the Fairchild Engine & Airplane Corp., a most competent organization, under an Air Force development contract. The Air Force paid the total cost of the development of this plane.

Also, the Air Force, as is customary in such cases, retained the right to arrange for the manufacture of the plane with sources of its own choosing. Before Korea, Fairchild was our sole source of supply of this plane, manufacturing them in a Government-owned plant at Hagerstown, Md. The production rate at that time was approximately 8 per month.

The combined Air Force 95-wing program, the military aid program, the Navy and the Royal Canadian Air Force requirements called for a total of about 1,800 of this type of plane. This requirement and the desired production rate of about 135 planes per month, to be reached by mid-1953, was formally approved by the Air Force, the Office of the Assistant Secretary of Defense, Comptroller, and the Munitions Board between late 1950 and early 1951.

The Air Staff and the Air Materiel Command first scheduled the Fairchild, Hagerstown, plant at its then full capacity of about 33 planes per month, to be reached as rapidly as possible.

The Air Force then sought a second source to provide the needed planes and also the desired manufacturing capacity in reserve.

Mobilization studies had been made of utilizing a standby plant in Omaha under Fairchild management as an additional source. This facility, however, had become the headquarters and home of the Strategic Air Command and use of this plant was, therefore, rejected, because of the problems involved in relocating the Strategic Air Command.

An alternate standby plant in Chicago was also considered. There were several reasons why it was decided not to reactivate this plant at this time. First, the plant—of wooden construction—had deteriorated. Therefore, extensive reconstruction would have been necessary.

Furthermore, the labor situation in the area was acute as contrasted with other sections of the country, particularly Detroit, and finally, the production capacity of the plant, while sufficient to meet the immediate requirement, gave little capability for further expansion if requirements increased.

Marietta was considered, but was needed in the B-47 jet-bomber program, and, finally, the Birmingham Modification Center was rejected, because the plant layout, being specially designed for modification work, was not considered efficient for manufacturing.

Willow Run was also considered and its choice dictated by the following considerations:

The plant was already in the Air Force industrial mobilization plan for the production of medium bombers. The owners, the Kaiser-Frazer Co., had for some time held study contracts for planning bomber production.

Therefore, the use of this facility for aircraft production was not a new or hastily conceived idea. The plant had been sold to Kaiser-Frazer under a contract containing a national security clause which made it available for defense purposes in an emergency. The contract provided also that the plant be operated under the management of the purchaser unless he refused to do so or could be proven incapable.

By reopening the wartime plants at Tulsa, Marietta, and Wichita, we were certain that we would have adequate capacity for our medium bomber requirements, plus a substantial reserve.

Willow Run, therefore, was switched to the C-119 program. The plant was considered open capacity and was located in a distressed labor area and, therefore, its use met the directive of the Secretary of Defense in these respects. Overall costs of tooling and initial production, though high, were considered by the Air Materiel Command to be comparable to those expected elsewhere in newly created facilities.

The plant, it was estimated, was easily capable of producing the currently required monthly production of about 100 planes per month, and in addition was estimated to possess in all-out production capacity of about 260 per month.

Since Willow Run was not required in the bomber program, its use for production of C-119's was logical for the reasons given and the fact that it possessed ultimate production capacity much greater than any other available factory.

I wish to emphasize one point. The Air Force at all times recognized that costs realized on initial production from new sources would greatly exceed those of established producers. In the instance of the C-119, it was obvious that initial costs from any second source would be, in the nature of things, high.

In any case, this particular decision was never a choice between the existing source, at Hagerstown, versus Willow Run. The Hagerstown facility was, from the beginning, scheduled to capacity. The choice was Hagerstown plus Willow Run, or Chicago, or Omaha, or elsewhere; and the Air Force selected Willow Run for the reasons mentioned.

The tentative decision was reached at a meeting at Wright Field attended by all of the principal officers of the Air Materiel Command, the Deputy Chief of Staff Materiel, several civilian assistants and myself. This problem and several other similar problems of plant activation were discussed and tentative decisions reached in each instance.

I concluded that the reasoning behind the command and staff recommendations on the several problems discussed, including the use of Willow Run, was sound and offered the best possible solution to our production problems, and I, therefore, approved the recommendations.

Immediately thereafter I reported the decisions to my superior, the Secretary of the Air Force. On his concurrence, I authorized the staff and the Air Materiel Command to engage in active detailed negotiations and if satisfactory terms could be agreed upon, to consummate binding letter contracts which would get work under way at once.

In all of these decisions there was an element of urgency. The Air Force had been reduced to only 42 partially equipped wings. When the Korean war broke out it was hard pressed to fulfill its mission in Korea, let alone other missions. We were aroused to the danger and we took fast action.

It is my opinion that the officers in the Air Staff and the Air Materiel Command met the challenge capably and efficiently. It may well be that the C-119 program at Willow Run has faltered. Nonetheless, the overall result of the Air Force procurement program is manifest in a production rate of planes and engines that is now almost eight times what it was on the eve of the Korean war—and this production comes from plants that can, if called upon, increase their rate of production severalfold in a minimum time.

Those of us who over a period of years have had knowledge of the great and growing strength of Soviet airpower, are very glad to note the interest being taken by the Congress, as exemplified in these hearings, in the production of modern military planes in the United States.

The CHAIRMAN. Thank you, Mr. McCone. Before we start questioning, I want to show the committee particularly these planes. These are the 2 models of the 2 planes. This plane is the one made by Fairchild. The white indicates the part of the plane that Fairchild itself manufactured. The red indicates the part of the plane which they subcontracted to others. The black indicates that furnished by the Government.

So you can see that Fairchild produced a substantial part of this plane.



Here is the same plane produced by Kaiser-Frazer. You will see again that white designates what was produced by Kaiser-Frazer, the red what they subcontracted, and the black was furnished by the Government.

You can see a striking difference between what Fairchild did and what Kaiser-Frazer did on their own, so that we can get a clear picture of what these planes are. I think it will give you perhaps a little better picture than you could otherwise have.

Mr. McCone, in your opening statement, you referred to the performance of the Kaiser-Frazer contract as unsatisfactory. When did this come to your attention first?

Mr. McCONE. I referred to it as being reported as not satisfactory. It did not come to my attention during my tenure of office. I resigned as Under Secretary on October 15, 1951, and they had scarcely started production by that time.

Since leaving I have naturally read the reports in the paper and in talking with my former associates have heard of some of the problems.

The CHAIRMAN. Do you recall anybody specifically bringing it to your attention?

Mr. McCONE. No.

The CHAIRMAN. There were just general reports in the papers?

Mr. McCONE. Just general reports. I think it first came to my attention about a year ago, in May 1952, when, as I remember, it was brought to the attention of a committee of the House. I think that is the first time I really had cognizance of such matters.

The CHAIRMAN. In your opening statement you gave as a reason for the award of this contract that Detroit was a distressed labor area. On page 65 of the United States Department of Labor Summary of March 1951 it is indicated that the Detroit area in November 1950 had a tight or balanced labor supply with a slight decrease in January up to a slight labor supply. What is your comment on those facts?

In other words, your statement would indicate a situation during the time when these negotiations were on, and the United States Department of Labor would indicate that the situation was not as you have indicated.

Mr. McCONE. I am not familiar with that particular report. It is my impression—and I gained this impression not from surveys that were made by me or by my office but from information that came to me from various sources—that the cutback in automobile production, which was then quite precipitous because of shortages of material, was developing a situation in Detroit that was becoming alarming.

The CHAIRMAN. We will put in the record the report from the Labor Market and Employment Security for March 1951, issued by the United States Department of Labor.

(The report is as follows:)

LABOR MARKET BRIEFS—151 MAJOR AREAS, JANUARY 1951<sup>1</sup>  
Relative unemployment classifications, employment and unemployment trends, and highlights

State and labor market area	Relative unemployment classification <sup>2</sup>			Estimated employment, January 1951 <sup>3</sup> (in thousands)						Unemployment change to January from 4—		Highlights
	Jan-uary 1951	Novem-ber 1950	Jan-uary 1950	Nonagricultural		Manufacturing				Novem-ber 1950	Jan-uary 1950	
				Num-ber	Percent change from—	Num-ber	Percent change from—					
							Novem-ber 1950	Jan-uary 1950	Novem-ber 1950			
Michigan: Detroit <sup>5</sup> .....	B	A	C	1,231.0	-1.2	+10.3	705.0	-0.8	+11.9	^^	V	Joblessness almost doubled after new wave of in-migration, seasonal trade, construction cuts, materials shortage, model changeover layoffs in metal fabrication. Dominant autos rehire to prechangeover level, although output + below 1950 peak. Defense work increasing, some auto plants have substantial contracts. New materials controls make scheduled stability of auto employment unlikely.
Flint.....	A	A	B	106.2	-4	+9.0	70.3	+9	+11.6	^	^^	Seasonal trade, construction downswings counterbal-ance slight expansion in dominant autos and parts after model changeover. Scheduled spring auto expansion unlikely in new materials controls. Large new contract for tank transmissions may moderate effects of possible auto cutbacks.
Grand Rapids.....	B	B	D	102.4	-2.3	+5.6	49.8	-2.4	+6.6	^^	^^	Material shortages force cutback in important refrig-erators, trade, construction seasonally. Little defense work; primarily aircraft instruments, textiles, furniture. Scheduled spring expansion in furniture, electrical machinery may be offset by metal fabrica-tion cut; refrigerator, auto parts orders reduced.
Kalamazoo.....	B	A	C	45.1	-2.2	-21.6	23.8	-1.7	+16.0	^^	^^	Metal fabrication, hampered by steel shortages, leads employment downturn; no change in important paper. Most metalworking skills short despite sharp gain in joblessness; little demand for women, except clerical. Labor supply adequate for scheduled spring expansion, barring sharp defense pickup.
Lansing.....	A	A	C	69.2	-2.7	+9.1	30.2	-2.9	+18.0	^^	^^	Material shortages force cut in dominant autos; some workers, laid off for model changeover, not called

Joblessness almost doubled after new wave of in-migration, seasonal trade, construction cuts, materials shortages, model changeover layoffs in metal fabrication. Dominant autos rehire to prechangeover level, although output + below 1950 peak. Defense work increasing; some auto plants have substantial contracts. New materials controls make scheduled start of auto employment unlikely.

Seasonal trade, construction downswings counterbalance slight expansion in dominant autos and parts after model changeover. Scheduled spring auto expansion unlikely in view of new materials controls. Large new contract for tank transmissions may moderate effects of possible auto cutbacks.

Material shortages force cutback in important refrigerators trade, construction off seasonally. Little defense work, primarily aircraft instruments, textiles, furniture. Scheduled spring expansion in furniture, electrical machinery may be offset by metal fabrication cut; refrigerator, auto parts orders reduced.

Metal fabrication, hampered by steel shortages, leads employment downturn; no change in important paper. Most metalworking skills short despite sharp gain in joblessness; little demand for women, except seasonal. Labor supply adequate for scheduled spring expansion, barring sharp defense pickup.

Material shortages force cut in dominant autos; some workers, laid off for model changeover, not called

Muskegon	C	B	E	41.6	-4.3	+22.4	26.8	-3.2	+34.0	^^	^^	back. Spot skill shortages strongest in foundry, machine shop trades. Further layoffs in autos planned; may be intensified by new controls.
Saginaw	A	A	O	48.4	-6	+5.9	26.1	0	+9.2	^^	^^	All major industries share in employment drop; important refrigerators, foundries hardest hit. Joblessness doubles. Refrigerator output cut sharply to conserve limited materials for new models; scheduled call-backs, expected to dominate spring grains, may not materialize due to new controls.

# EXPLANATORY NOTES

The data presented here are derived from the regular bimonthly area labor market reports received by the Bureau of Employment Security from affiliated State employment security agencies. Each area listed consists of a principal city or cities and the surrounding area within a reasonable commuting distance. More detailed information on any of these areas may be obtained from the Bureau of Employment Security or from the appropriate affiliated State employment security agency.

<sup>1</sup> Also included are 3 small areas of very substantial labor surplus.

<sup>2</sup> Explanation of classification codes:

Code	Ratio of unemployment to labor force	Definition of code
A	Under 3 percent	Tight or balanced labor supply.
B	3 to 4.9 percent	Slight labor surplus.
C	5 to 6.9 percent	Moderate labor surplus.
D	7 to 11.9 percent	Substantial labor surplus.
E	12 percent and over	Very substantial labor surplus.

<sup>3</sup> Unless otherwise specified, employment data relate to total wage and salaried workers for the payroll period ending nearest the 15th of the month. Self-employed, unpaid family workers, and domestics are excluded.

<sup>4</sup> Explanation of midmonth unemployment change symbols:

- XX No change or change of less than 5 percent.
- ^ Increase of 5 to 14.9 percent.
- ^ Increase of 15 percent or more.
- ^ Decrease of 5 to 14.9 percent.
- ^ Decrease of 15 percent or more.

<sup>5</sup> Area definition changed to conform with standard metropolitan areas.

The CHAIRMAN. Mr. McCone, directing your attention to December 5, 1950, under what circumstances did you first discuss the award of a contract for the C-119 cargo transport plane with anyone from the Kaiser-Frazer Corp.?

Mr. McCONE. That matter first came to my attention in this way: Mr. Henry Kaiser, Sr., and Mr. Edgar Kaiser, called me in my office on December 5 and told me that their plant was available for the manufacture of planes or other war materials and they were desirous of utilizing it for that purpose.

During the meeting, I called in Lieutenant General Wolfe, Deputy Chief of Staff, Materiel, at that time, but now retired. During the discussions between General Wolfe and General Rawlings, now Commanding General of the Air Materiel Command, but then Comptroller of the Air Force—and his presence was interdepartmental and by coincidence rather than official, because his responsibilities did not extend to this procurement area at that time—during that discussion which had started out with the idea of the production of the B-47 jet bomber, General Wolfe brought up the idea of the utilization of the plant for the production of the C-119.

That is the first time I heard about it.

The CHAIRMAN. In the course of your conversations, did Mr. Edgar Kaiser state that the Reconstruction Finance Corporation had insisted that Kaiser-Frazer Corp. obtain defense contracts as a condition to the granting of an RFC loan?

Mr. McCONE. No, he did not.

The CHAIRMAN. Are you aware that at 10 a. m. on December 5, 1950, the same day we referred to, that the Reconstruction Finance Corporation announced that it had made a loan to Kaiser-Frazer Corp. in the amount of \$25 million?

Mr. McCONE. I was told at that luncheon that that had taken place. I did not know that it had taken place at that particular time, but I knew and was told by Mr. Kaiser that he had arranged a loan with the Reconstruction Finance Corporation for working capital.

The CHAIRMAN. Would you state exactly what the proposals were that Mr. Edgar Kaiser submitted for your consideration in the utilization of the Willow Run plant for the Air Force?

Mr. McCONE. At that meeting?

The CHAIRMAN. Yes.

Mr. McCONE. He did not submit any proposal that I recall. What he said was this: This financing had been arranged and the Reconstruction Finance Corporation had suggested that they endeavor to obtain some defense work for the plant. He did not say that it was a condition of the loan. He said that they had suggested—and I am very clear on that; I am very clear in my memory in that regard.

We immediately discussed the production of the B-47 bomber, and the reason we did that was because the Kaiser-Frazer Co. had been involved in industrial mobilization planning and production planning of the medium bomber, first the B-50, and then subsequently, the B-47 when the B-50 was phased out by this new airplane.

The CHAIRMAN. Considering the fact that they had a contract with Kaiser-Frazer for studies to be made for the utilization of Willow Run for the B-47 program, why was it not necessary to have a similar

study made with regard to the utilization of Willow Run for the production of the C-119?

Mr. McCONE. The Air Force is thoroughly familiar with first, the Willow Run facility, and, secondly, the tooling and the layout required to produce the C-119 or any other plane in their program.

I felt that, with the experience possessed at Wright Field a decision concerning the adaptability of Willow Run or any other plant for the production of a plane such as the C-119 could be reached without a study of the type that had been engaged in with the medium bomber.

The CHAIRMAN. Do you think that inasmuch as you made a study on the B-47 of the Willow Run plant utilization in connection with that, and you did not—not that you did not, but there was none made so far as the C-119 was concerned—that that revealed an inconsistency of a proper liaison between the planning group and the procurement group of the Air Force?

Mr. McCONE. No, I do not think so.

The CHAIRMAN. On December 5, 1950, a contract was entered into between the Boeing Aircraft Co. and Kaiser-Frazer concerning studies to be made on production of the B-47 at Willow Run.

Would this contract have had any influence on any decision which you may have ultimately reached insofar as production at Willow Run was concerned?

Mr. McCONE. No.

The CHAIRMAN. Directing your attention again to the meeting of December 5, 1950, did you advise the Kaiser-Frazer Corp. to submit proposals to the Air Force for the production of both the B-47 and the C-119 planes?

Mr. McCONE. No, I did not advise the Kaiser-Frazer Co. to submit proposals on anything.

The CHAIRMAN. At 2 o'clock on the afternoon of December 5, 1950, Lt. Gen. K. B. Wolfe called the Fairchild Aircraft Corp. and informed it that Messrs. Edgar and Henry Kaiser would appear at its plant at 10 o'clock the following morning in order to obtain engineering and technical data to be used in producing the C-119 at Willow Run.

Do you not consider this a highhanded method of informing the designer of a military aircraft that another company was going to step in and produce its plane—that they should get that without warning in that respect?

Mr. McCONE. I do not like to say that it was highhanded. I will say and I always felt that it would have been more appropriate for the Air Force to have first given the Fairchild Co. maybe more warning, and, secondly, handled the matter with greater formality.

In defense of General Wolfe, however, I would like to point out to this committee that in those days he was working 14 and 16 hours a day. Senator Symington knows far better than I the pressure that those men are under at times like that.

I think it was a regrettable incident, for which I do not think the man or his office can necessarily be criticized.

The CHAIRMAN. Do you not think a lot happened on December 5, 1950? Kaiser-Frazer got a \$25 million loan from RFC, they appeared at your office, they start producing the C-119, there was no study made of Willow Run, Fairchild is told that Kaiser-Frazer people are appearing there to get the plans and produce the plane, that being the first they have heard of it.

December 5 was a very important day and a very quick-moving day, all in all, was it not?

Mr. McCONE. Yes, it was a quick-moving day. All of the days were quick-moving in those days.

The CHAIRMAN. Can you think of another day where as many things happened in this connection as that?

Mr. McCONE. A great many more things happened on December 15, Mr. Chairman, which was 10 days later.

I would like to point out that here this man came to my office and said that his plant was available. The logical thing for me or for any Secretary to do was to turn the man over to the proper authorities on the air staff, and that is what I did.

General Wolfe was dealing with a problem of the second source for C-119's at that time, and had come to the conclusion that apparently the plant was not required in the medium bomber program field, the B-47 program. So he turned to the possibility, he desired to explore the possibility of its use on C-119's.

That was the action that he took on that day. He did not make the decision on that day. But he started the exploration on that day.

I do not think that was particularly precipitous. I think that had time permitted, and had he been able to have gotten in touch with Mr. Boutelle about it personally, that it would have been a more considerate thing to do.

The CHAIRMAN. What were the reasons for Kaiser having the plant available at that time?

Mr. McCONE. As explained to me, the plant was available because the material shortages had greatly reduced his automobile production and he forecasted that as the defense program built up the shortages would become increasingly acute and automobile production might even be ceased entirely.

The CHAIRMAN. Who reduced the automobile production?

Mr. McCONE. I do not know that I can answer that question specifically. It is my impression that in the fall of 1950, as the defense effort built up and as the National Production Authority started its operations, the first step was the voluntary allocation of material between producers as a step preliminary to actual allocation of materials under a controlled materials plan.

I think at that time the shortages of material were due first to a hardening of the market, and, secondly, to the voluntary allocation.

It seemed to prevail throughout the industry because representatives of a great many automobile companies and other commercial manufacturers were coming to us, several a day, wondering what they were going to do with no materials to carry on the manufacture of refrigerators and automobiles and radios and televisions and so forth. It was quite a problem.

The CHAIRMAN. Mr. McCONE, prior to December 5, 1950, did you direct General Wolfe to look into the feasibility of putting a plane other than the B-47 into production at Willow Run?

Mr. McCONE. Not to my memory, I did not. I may have discussed it but I do not recall that I discussed it. It was not the function of my office to direct the staff or the Air Materiel Command concerning the placement of planes, particular planes in particular factories.

The CHAIRMAN. Did you discuss with anybody in the Air Force, General Wolfe or anybody else, prior to December 5, 1950, the placing of a contract with Willow Run?

Mr. McCONE. Not to my knowledge.

The CHAIRMAN. Did you discuss with anybody else——

Mr. McCONE. I would like to qualify that. During those months, say from the first of November on through, we were meeting almost continuously on this problem of creating this industrial base that we had to have to accomplish the production I mentioned in my statement.

Whether Willow Run came up in those meetings I really have forgotten. I have no record of it.

The CHAIRMAN. Did you discuss with anybody outside the Air Force, Willow Run being used?

Mr. McCONE. Not to my knowledge, no.

The CHAIRMAN. Senator Flanders, do you have any questions?

Senator FLANDERS. Not now.

The CHAIRMAN. Senator Duff?

Senator DUFF. Not now.

The CHAIRMAN. Senator Byrd?

Senator BYRD. No questions at this time. I may have some later.

The CHAIRMAN. Senator Symington?

Senator SYMINGTON. Mr. Chairman, are you going to continue to ask questions?

The CHAIRMAN. Yes.

Senator SYMINGTON. Then I have none at the present time.

The CHAIRMAN. Mr. McCone, what action or investigation did you undertake in this matter between December 5 and December 15, 1950, when you made the decision to award the C-119 contract to Kaiser-Frazer?

Mr. McCONE. I did not make the decision.

The CHAIRMAN. Who made the decision?

Mr. McCONE. Except for continual conferences with General Wolfe and men on his staff, and occasional meetings with General Cook, I took no action whatsoever.

The CHAIRMAN. Who made the decision?

Mr. McCONE. The decision was made by the Air Materiel Command in reaching a conclusion concerning several plant activation problems, and that was in the form of a recommendation made to General Wolfe, Deputy Chief of Staff, Materiel, and to me. We approved that recommendation.

The CHAIRMAN. Actually they made the recommendation but you made the decision. Is not that right?

Mr. McCONE. I approved the recommendation.

The CHAIRMAN. It was your final decision?

Mr. McCONE. Yes, I suppose to the extent that anything is final, this area was delegated to me by the Secretary.

When I approved it I suppose that I made the decision, yes. The point I want to make is that in the order of things in the Air Force there is a big organization engaged in studying these problems and reaching some conclusions, and they come up with recommendations. When they do, about the only thing that a Secretary's office can do is test them for their logic and correctness and how they fit into the

broad picture and either approve them or make suggestions as to how they might be changed.

The Secretary's office, as it was organized under me and as it is now organized, does not have a staff that makes investigations and studies parallel to those of the command and the military staff.

The CHAIRMAN. Prior to December 15, 1950, what discussions concerning the production of the C-119 at Willow Run did you have with any procurement officials at Air Materiel Command, Wright Field, Dayton, Ohio?

Mr. McCONE. I did not have any discussions at Wright Field at all with anyone on the production of C-119's. In fact, I do not think I had any discussions prior to about December 5 on the subject. Between December 5 and December 15, at the time that the matter was first brought to my attention at this meeting which I spoke of, it was discussed several times at my office but not at Wright Field. I did not go to Wright Field.

The CHAIRMAN. Were any of the officials from Wright Field there?

Mr. McCONE. I presume so, yes. I have no records of those meetings but I presume that the officers from Wright Field were in and out quite frequently.

I cannot answer positively in that regard.

The CHAIRMAN. Prior to December 15, did you discuss this matter with any departments or defense agencies in the Government?

Mr. McCONE. No.

The CHAIRMAN. Did you discuss this matter with the Fairchild Aircraft Corp. which designed the plane and was producing it?

Mr. McCONE. Not prior to December 15, no, sir.

The CHAIRMAN. Did you know whether or not Kaiser-Frazer had been negotiating with the Army for a tank production contract prior to that time?

Mr. McCONE. No, I did not know that.

I knew that in October Kaiser-Frazer had had some discussions with the Department of the Army over the production of jeeps but I did not know about the tanks.

The CHAIRMAN. Referring to December 15, the day the decision was made to award the contract for the production of the C-119 to Kaiser-Frazer, would you please tell the committee your recollection of the proceedings with reference to this contract?

What happened that day?

Mr. McCONE. We convened a meeting with Wright Field. The Deputy Chief of Staff, Materiel, convened a meeting with the staff at Wright Field on December 15 for the purpose of reviewing a number of problems on which tentative decisions had to be made in order to permit the Air Materiel Command to proceed with its procurement action. This committee undoubtedly is familiar with the fact that procurement action is delegated by the Secretary's office to the Chief of Staff of the Air Force and by the Chief of Staff to the Deputy Chief of Staff, Materiel, and the commanding general at Wright Field.

It is customary for the Under Secretary's office to take cognizance over these matters for the Secretary. This meeting was called to review many problems that we had. We were right at the time when we had to take action in connection with additional sources of supply of engines and of various types of aircraft.



It was a meeting attended by a large number of the staff. General Chidlaw, the commanding general of Wright Field, Air Materiel Command; General Cook, who was in charge of the Procurement Division, and their subordinates.

I was there with Assistant Secretary Zuckert and a number of our civilian assistants, and General Wolfe was there with some of his staff.

The CHAIRMAN. In the discussion regarding a decision to award a contract by the Air Force, is it not customary or is it not the customary procedure, to carefully scrutinize cost estimates?

Mr. McCONE. No. Under the circumstances then it was impossible to do so. We had to analyze the broad picture and to indicate the procedure that we thought was the best to follow.

The CHAIRMAN. I do not want to interrupt you but to get it straight. Do you mean to say it is not customary for the Air Force to scrutinize cost figures in awarding a contract?

Mr. McCONE. The Air Materiel Command scrutinizes costs in great detail. But in conceiving this whole matter of production there were many uncertainties, and so much cost information that was not available to us, that we had to proceed on a program of developing what seemed to be a comprehensive production program which would meet our requirements and conform to the directives we had.

We did not have the detailed estimates by the various contractors so that we could compare them price by price and bid for bid. In this particular instance it was some months before definitive estimates were submitted to the Air Force.

The CHAIRMAN. What estimates, and would you describe them, were presented on December 15 as to the possible cost of producing C-119's at Willow Run, and where did these come from?

Mr. McCONE. I can only speak from my recollection, Mr. Chairman, because I have asked the Air Force to locate for me the various charts and schedules that were presented. My recollection of the meeting was this: procurement officers briefed the meeting on the program in general, the alternate plans and their ideas of the production rates, and the probable tooling costs that could be obtained. There were no specific presentations from the contractors involved. In many of the instances the contractor himself was not nominated.

In the case, for instance, of the Tulsa plant, which was under discussion at that meeting, as I remember it the North American Aviation Co. was considered as the operator but it later turned out that it was shifted to Douglas. The purpose of the meeting was to develop a pattern for the best possible use of the floor area that was available to us for the production of airframes and engines.

The CHAIRMAN. Is it your impression that the cost estimate for the production of the C-119 at Willow Run were contained in proposals submitted by the Kaiser-Frazer Co.?

Mr. McCONE. No, not at that time.

The CHAIRMAN. Did the cost estimates actually come from proposals submitted by Kaiser-Frazer?

Mr. McCONE. No. I understand that the proposal from the Kaiser-Frazer Co. was received a few days after the meeting, and in reviewing my own office records I find that I was advised that that proposal was to come in on December 19, 4 days after the meeting.

In connection with this I would like to emphasize a point that I made in my statement and that is that what we authorized, what the Secretary's office authorized, was for the staff and the Air Materiel Command to engage in active detailed negotiations, and if satisfactory terms could be agreed upon, to consummate binding letter contracts to get the work under way at once.

The CHAIRMAN. Mr. McCone, did you tell our staff that it was your impression that your estimate came from the Kaiser-Frazer proposals?

Mr. McCONE. Mr. Anton and I have a difference of opinion of that discussion, Mr. Chairman. I am very clear that I did not say that. He is equally clear that I did. There were no notes or no records made of this discussion which lasted for some 6 or 7 hours. I can only say that upon review of my own files, which I made at the time to clarify my own thinking, I find that on December 19 I was told that this proposal was to be in the hands of the Air Materiel Command on that day.

The CHAIRMAN. Mr. McCone, if the Air Force's records should indicate that the decision to award the contract for the C-119 to Kaiser-Frazer was reached on December 15, and that the proposals were delivered by Kaiser-Frazer to the Air Materiel Command on December 19, 4 days later, and that the letter of the contract of intent was awarded to Kaiser-Frazer on December 20, what would you say?

Mr. McCONE. I would say that that action, though apparently fast, was proper under the sense of urgency that we were operating.

The CHAIRMAN. It is even faster than fast, is it not?

Mr. McCONE. It is pretty fast; you bet.

The CHAIRMAN. If one could take place on the 15th, and the proposals that it was awarded on were not delivered until the 19th and the letter of intent was delivered on the 20th, it is pretty rapid work.

Mr. McCONE. Mr. Chairman, I am proud of the dispatch attached to the Air Staff and Air Materiel Command's action in these areas of procurement. I feel that it is an evidence of their skill and their courage and that they took fast action, and that as a result one of the things we have not worried about too much is aircraft production. There are other items of production which this committee or other committees have concerned themselves with where decisions have not been made and the consequences have been serious. We try to avoid that.

The CHAIRMAN. Suppose these things occurred. On what basis did you award the proposal on December 15, the other dates involved being the 19th and the 20th?

Mr. McCONE. The thinking behind it was this: the experienced officers in the Air Materiel Command can, from the knowledge of the plants they have built and grown up with, they can very easily calculate what the production is going to be, and they know just about what the tooling costs will be. The officers—General Cook and his men—knew more about what the tooling and what the production at Willow Run would be than the Kaiser-Frazer Co. ever did because they were professionals in the business, and here was the contractor, who was an amateur. So they could reach a conclusion very easily, very easily, that this plant could be used properly for the

manufacture of the plane, and they likewise knew that certain long lead time machine tools would have to be purchased or gotten into production; there was need for the plane, irrespective of where it was produced. That is what they wanted to get under way. That is why they issued that letter promptly. I think that there was only four or five million dollars that was authorized at that time for expenditure for these particular long lead time items. Getting that started then they could proceed in a more orderly fashion with other details of the negotiations. That to me seemed to be a proper procedure and one pursued in a great many other cases.

The CHAIRMAN. You said that part of the reason for awarding this, at least I understood you to say, was the policy laid down by the Department on a second source of supply.

Mr. McCONE. Yes, that is correct, although we needed this second source not to conform to that policy but to actually meet the requirements.

The CHAIRMAN. I want to point out that we have these dates of December 5, where you talked with Kaiser and Kaiser got the \$25 million loan; then we have December 15, when you awarded the contract; December 19 when the Kaiser-Frazer Co. submitted the proposals; and December 20 when the actual letter of intent of award was sent. Do you know that the policy established by the Defense Department by Secretary of Defense George Marshall was not issued or established until December 18, 1950?

Mr. McCONE. Yes, I am familiar with that, but I also know that it was in drafting stages and we were all working over it for several weeks, and it was a known policy. Like so many things, true, they might be subject to change before actual issuance, but it had been a subject of common discussion among us, the Secretaries and Under Secretaries, for some time; therefore we felt that we were conforming to the established policy as developed in conference, although I do know that the actual paper which I quoted here was not issued until December 18.

The CHAIRMAN. Mr. McCONE, I would like to read a letter written by John A. McCone on January 19, 1953, to Mr. James Anton, of the Senate Preparedness Investigating Subcommittee. I will read two paragraphs:

Dear Mr. ANTON: Casual reading of your memorandum of our conference on January 7, 1953, prompts me to write you offering the following clarifications. In doing so, however, I wish to repeat that I think the memorandum is a splendid summary of a several-hour discussion which reviewed a complicated transaction in considerable detail.

Now I will read from the first paragraph on page 2:

Page 4, paragraph 2: This point I believe is of importance. It is my definite recollection that my testimony was to the effect that no Kaiser-Frazer studies were in evidence at the meeting. However, I went on to say that I assumed the information presented was secured from Kaiser-Frazer. What probably happened—and this could be readily determined from questioning the officers involved—is that during the period Kaiser-Frazer was preparing the studies and before their formal presentation to AMC, certainly essential data was given to AMC for use at the December 15 meeting. This is supposition on my part but I think it could be determined if this was so and is the point I wish to make in my testimony.

Do you have any comment on that?

Mr. McCONE. No; I feel just the same as I did in that letter. It would not be unlikely at all if the officers, the young officers at Wright

Field had been in touch with the Kaiser organization almost daily on this thing. I do not know that to be a fact, but thinking back into when I, as a manufacturer, was doing similar operations for the Air Materiel Command during the time of the preparation of our proposal—and this was for a plant in World War II—our engineers were in Wright Field continuously.

The CHAIRMAN. Do you think that it is customary for the Air Force to jump the gun, anticipate decisions of the Defense Department, such as the Marshall order to broaden the base?

Mr. McCONE. No, I do not think that. I think that quite to the contrary they are careful not to take any irrevocable action. But I think if they feel the urgency that we all felt then, it is proper to plan and to anticipate the thing, but not take irrevocable action.

The CHAIRMAN. If you were going to jump the gun, so to speak, or anticipate, why was it important to jump the gun on the C-119 which was a cargo transport, instead of the vitally needed fighting aircraft such as the B-47 bomber or the F-84 fighter or some of those planes which were vitally needed, right on the front? Why did you jump the gun on a cargo plane? Could you point out examples where you jumped the gun on others?

Mr. McCONE. I cannot answer that exactly because in the first place I did not jump the gun. But at the meeting which laid the foundation for these various procurement actions, there were several other second-source decisions made for engines and aircraft. I am not familiar with the dates of the procurement actions that followed that meeting in other areas but it would not surprise me if they came along at the same time or later. I really do not know that.

The CHAIRMAN. Mr. McCone, I would like to ask you an important question. Would you say that the policy of broadening the industrial base is justified in a situation where the second-source contractor produces the same item at a cost to the Government of the United States of four or more times the cost of the prime contractor? In other words, to go back to my statement earlier, where I pointed out that the cost of producing the plane at Fairchild was \$260,000 per unit cost and it developed that the cost at Kaiser-Frazer was \$1,200,000, by any stretch of imagination can you say that you could justify the reasonableness of broadening the base of a supply when the cost jumped from \$260,000 to 4 or 5 times that, or to \$1,200,000?

Mr. McCONE. I would like to answer that question in two ways. In the first place, as indicated in your statement, the apparent differential of cost is not in the order of 4 or 5 times but it was in the order of \$605,000 to \$275,000. I do not recall your figures. It was something in the order of 2 or 2½ to 1. The 4 or 5 to 1 seems to have developed from the performance of the contractor rather than from the figures that were anticipated earlier in the game.

Senator FLANDERS. May I ask the witness to give those comparative figures again?

The CHAIRMAN. Yes.

Mr. McCONE. Could I refer to your statement?

Senator FLANDERS. These are the figures that the committee has given?

Mr. McCONE. Yes, sir.

The CHAIRMAN. My statement was that the reports coming to the committee from both sources were alarming. Instead of the esti-

mated cost of \$688,365 per unit to Kaiser-Frazer, it actually developed at the time that the unit cost would be approximately \$1,200,000, and the cost to Fairchild was approximately \$260,000.

Mr. McCONE. I think had the estimated cost at that time been \$1,250,000, the whole matter would have been reviewed very, very carefully to find out how a second source that more closely approached the cost of the prime source could be developed, and therefore it is the performance that has thrown the thing so far out of balance not the figures that were apparent in the early stages of the negotiations. I would like to make another point and that is that the prime source was scheduled to its full capacity of 30 or 35 per month. So it was not a matter of comparing the cost of the second source to the cost of the prime source but it was a problem of creating a second source to meet the requirements which had been approved and presented to the Air Materiel Command to do something about.

In other words, to repeat my statement, it was not Hagerstown versus Willow Run. It was Hagerstown plus Willow Run, or plus Chicago, or plus Omaha. That was the decision that was made. If Hagerstown had had a capacity of substantially more planes then I think the proper action would have been to have sponged up that capacity and maybe started the second source on a very minimum number of planes so as to reduce to the minimum the overall cost to the Government.

The CHAIRMAN. Do you recall Gen. Hoyt Vandenberg, Chief of Staff of the Air Force, coming to you subsequent to December 15, 1950, and stating to you that he was concerned over dedicating Willow Run to the C-119's?

Mr. McCONE. Yes.

The CHAIRMAN. What was your reaction when the Chief of the Air Force came to you and said he was concerned over that?

Mr. McCONE. I told him that I would go into the matter with the staff and the command. He told me he was concerned about dedicating it to C-119's when it was such a large and important producing unit for the B-47's. The subject was brought up at the meeting of December 15 and unfortunately the transcript of that meeting is not available. But the notes from the meeting indicate that it was discussed, that the subject was discussed. It was decided that because we were bringing Tulsa and Marietta in addition to Wichita, into the B-47 program, that we had ample capacity for our requirements plus a very substantial reserve for expansion if need be, and, therefore, we did not have to anticipate Willow Run in the B-47 program.

The CHAIRMAN. What did Mr. Finletter, Secretary of Air, say? What reaction did he give you when you reported the decision made on December 15 to award the C-119 contract to Kaiser-Frazer?

Mr. McCONE. He offered no objection and approved it and on that basis the Deputy Chief of Staff, Materiel, was authorized to proceed. (Discussion off the record.)

Senator FLANDERS. Mr. McCone, during the fall of 1950 the Air Force was planning for a 95-air-wing program. Under this contemplated program, could the requirements for the C-119 aircraft have been met by the Fairchild Aircraft Corp. which had designed this plane and was then producing it?

Mr. McCONE. The 95-wing program, plus the military-aid requirement which was developed concurrently, together with a small

requirement for the Navy and a requirement for the Royal Canadian Air Force which we were supplying, produced a total requirement of about 1,800 airplanes. That is not an exact figure, but that is very close to it. They were to be produced as rapidly as possible, reaching a production rate of 135 planes per month by mid-1953. The Fairchild Co. did not have that capacity. The requirement of 1,800 planes, more or less——

Senator FLANDERS. Is this 1,800 of C-119's?

Mr. McCONE. Yes, sir; 1,800 of C-119's. And the production rate was approved by the Office of Secretary of Defense, Comptroller for Financing, by the Munitions Board, and, of course, by the Air Force, and was incorporated in the combined aircraft procurement program of the Defense Department at that time.

Senator FLANDERS. For my information will you tell me whether, when we say we have a 95 air wing program, does that include the cargo planes or only the fighting planes?

Mr. McCONE. It includes the cargo planes that are——

Senator FLANDERS. Assigned to the Air Force?

Mr. McCONE. No, that operate in the medium and heavy troop carrier wings. There are, in addition, some miscellaneous squadrons of transport planes that are always in addition to the 95 wings.

Senator FLANDERS. When we say 95 wings, that includes some wings of cargo planes?

Mr. McCONE. Yes, that is correct.

Senator FLANDERS. You told us a little earlier what the capacity per month was of the Fairchild Co. Will you give us that again?

Mr. McCONE. Yes. It was estimated at about 35 per month. I think the exact figure that was estimated was 33.

Senator FLANDERS. Another question related to this is Was not this figure of 1,800 C-119's a mobilization production figure rather than a current figure at that time, in the fall of 1950?

Mr. McCONE. No, sir; it was an actual requirement and it was set forth in schedule A-13 of the Air Force and, as I say, that schedule was approved by the various authorities and authorized for procurement.

Senator FLANDERS. It was a current schedule and a recognized requirement. It was not a mobilization figure?

Senator BYRD. May I ask a question?

Senator FLANDERS. Certainly.

Senator BYRD. How many planes have we in the 95 wing program?

Mr. McCONE. I cannot answer that, Senator Byrd. The Air Force could get that figure easily.

Senator BYRD. We hear so much about the air wing programs, I would like to know how many planes there are involved.

Mr. McCONE. I agree with you, sir. I think the figures, dealing with wings, are somewhat illusory.

Senator BYRD. If you can in answering these questions, I would rather that you give the planes rather than how many wings there are.

Mr. McCONE. I am sorry I do not have that information. I hope the committee appreciates that I have been out of the Air Force since October 1951 and therefore——

Senator BYRD. Is it not true that in the Air Force they have different numbers of planes in the wings, that they call it a wing and not have any standard number?

Mr. McCONE. That is correct. Different types of wings have different numbers of planes.

Senator BYRD. It really does not mean anything, does it?

Mr. McCONE. The numbers assigned to a wing range from 32 or 33 up to 75 or 80, or even more.

Senator FLANDERS. Mr. McCone, can you tell us exactly when that program for 1,800 C-119's, at the rate of 135 a month, was approved? Was it approved, had it been approved in the fall of 1950 or was the approval given later?

Mr. McCONE. It was developed, as I recall, in November of 1950. It was formally issued by the Air Force on December 31, 1950. It was approved by the Office of the Secretary of Defense and the Munitions Board formally on February 5, 1951.

Senator FLANDERS. So it was not an official program in the fall of 1950?

Mr. McCONE. No. That is correct. But it was sufficiently firm for the purposes of action because it was agreed, an approved program of the Joint Chiefs of Staff.

Senator FLANDERS. Can you recall what the steps were that were made at this time to determine whether Fairchild could meet the C-119 requirements? Any special effort made to see whether they could?

Mr. McCONE. I cannot answer that. I think that General Cook and his officers could answer that question.

Senator FLANDERS. I have in my hands a copy of a letter dated October 23, 1950, wherein it is recommended by Gen. Orval R. Cook, Chief of Procurement and Industrial Planning, that Fairchild be given a contract to open a facility in Chicago on December 1, 1950, as the most reasonable and economical way of meeting the requirements of the needs for the defense assistance program and the 95-wing program. Will you examine this before it is inserted in the record? We will place this letter in the record.

(The letter follows:)

OCTOBER 23, 1950.

Subject: Facilities expansion project C-199 requirements.

To: Director of Logistics Plans, Headquarters, USAF.

Attention of Industrial Planning Division, Washington, D. C.

1. There is a requirement to activate an additional facility to meet the requirements of the MDAP program for C-119 airplane and to provide capacity potential for C-119's in the 95-group program.

2. Programed MDAP C-119 requirements begin at 2 in October 1951 and raise to a peak of 13 per month in January 1953. Proposed Air Force and Navy requirement under the 69-group program is 12 in July 1951, rising to a peak of 15 (95 group) in November 1952, then leveling off in 1953 at 40 per month. Total Air Force and MDAP requirement is then 53 per month through 1953. Available information establishes potential capacity at Hagerstown of 40 per month under extremely adverse conditions, and with a subcontracting program which would require upward of \$10 million for facilities. Additional buildings, machinery, and equipment for Hagerstown to reach 40 per month is estimated at \$5 million.

Lack of capacity at Hagerstown to meet the peak 95-group and MDAP requirement, plus the above-estimated facility costs required to support a peak of 40 per month, clearly illustrates the requirement for selection and activation of an additional facility for C-119 production. A review of available facilities indicates that Air Force plant No. 3, Tulsa; Air Force plant No. 6, Marietta; Air Force plant No. 8, Chicago; and Air Force plant No. 1, Omaha, should be considered in this selection. Further, the Curtiss-Columbus, Bell-Niagara Falls, and Birmingham Modification Center facilities were reviewed but eliminated from further consideration because: (a) The Curtiss-Columbus facility is scheduled for use by North American for F-86 MDAP requirement; and (b) the Bell facility is pri-

vately owned and not available for use by another contractor; and (c) the modification center at Birmingham, Ala. (1,700,000 square feet) is adaptable to small-scale production but lacks flight-test facilities, and does not have the mobilization potential desirable in this case, without extensive additions and alterations. The plant is owned by the city of Birmingham and reportedly under option to Chase Aircraft Co. An analysis of the aforementioned Air Force plants for C-119 production discloses the following advantages and disadvantages in each case:

#### A. ADVANTAGES AND DISADVANTAGES OF ACTIVATION

##### (1) Air Force plant No. 3, Tulsa

(a) *Advantages.*—1. Favorable climatic conditions permit extensive outside operation. 2. Less vulnerable to air attack than sites in highly industrialized areas. 3. Good labor market.

(b) *Disadvantages.*—1. Assembly building, 4,000 feet by 320 feet precludes extensive production and subassembly operations, thus limiting this plant generally to final assembly unless additions were constructed. 2. Existing AMC S. and N. Depot now operating in the main assembly building would require relocation and interruption of operations in event subject plant is selected for C-119 production. 3. This plant is already scheduled for production of B-47 aircraft in event of mobilization.

##### (2) Air Force plant No. 6, Marietta

(a) *Advantages.*—1. Favorable climatic conditions permit outside operation. 2. Less vulnerable to air attack than sites in highly industrialized areas. 3. Fair labor market.

(b) *Disadvantages.*—1. Total area of 3,950,000 square feet is considered to be excessive for this operation. 2. Plant should be retained for planned M-day production of B-47 aircraft.

##### (3) Air Force plant No. 8, Chicago.

(a) *Advantages.*—1. Plant size and layout lends itself readily to the planned C-119 production although the plant as a whole requires more rehabilitation than at Tulsa, Omaha, and Marietta. 2. Relocation of existing tenant activities would not be serious and it is considered that the relocation costs would be considerably less than would be the case at Tulsa, Omaha, or Marietta. 3. Fair labor market.

(b) *Disadvantages.*—1. More vulnerable to air attack because of industrialized location than other sites considered.

##### (4) Air Force plant No. 1, Omaha.

(a) *Advantages.*—1. Assembly and production area of approximately 1,750,000 square feet makes this facility ideal for the C-119 production contemplated. 2. Not considered as vulnerable to air attack as other sites in highly industrialized areas. 3. Good labor market.

(b) *Disadvantages.*—1. Selection of this facility for C-119 production would necessitate expensive removal and relocation of a large part of the AF Industrial Reserve now in storage thereat. 2. Joint use by Headquarters, Strategic Air Command would seriously complicate both operations.

#### B. ORDER OF PRIORITY FOR ACTIVATION

(1) Air Force plant No. 8, Parkridge, Ill.

(2) Air Force plant No. 1, Omaha.

(3) Air Force plant No. 3, Tulsa.

(4) Air Force plant No. 6, Marietta.

4. In consideration of the above analysis, it is considered expedient and to the best interests of the Government to activate Air Force plant No. 8 (Douglas) Park Ridge, Ill., under Fairchild management. Initial cost is estimated at \$15 million all of which is chargeable to the MDAP requirement. Additional facilities in the amount of \$9 million (not included in this proposal) are planned from AF funds in order to provide capacity for 45 per month.

5. The estimated costs of reactivating the Chicago plant are estimated to be \$15 million broken down as follows:



Schedule II. Building installations and rehabilitation .....	\$849, 000
Schedule III:	
Machine tools and related production equipment .....	11, 200, 000
Building installations (mechanical) .....	815, 000
Furniture and fixtures .....	1, 060, 000
Schedule IV:	
Portable tools .....	578, 000
Motorized equipment .....	498, 000
Total .....	15, 000, 000

6. Work under schedule II includes complete rehabilitation of wood frame and trusses, construction of service pits, power distribution system, heating and ventilating, et cetera. Schedule III includes general and special machinery, related production equipment, repairs and additions to cranes and hoists, and furniture and fixtures, including a large quantity of shop and storage fixtures. Schedule IV includes the customary run of portable tools (drills, welders, grinders, etc.) and motorized handling and transportation equipment. Facilities furnished from the AF industrial reserve will be replaced with items of equal value.

7. As indicated in paragraph 4 above, all of the proposed expansion in the amount of \$15 million is required to meet the MDAP program requirement for C-119 airplanes. If it were not for the MDAP C-119 requirement, the activation of an additional facility would not be required to support the USAF requirements.

8. It is proposed to lease the plant to Fairchild on a no-rental basis, since there is no competitive element involved. Lower cost of end item is considered to be adequate consideration.

9. It is hereby certified that there is no existing active productive capacity available or suitable for the contemplated C-119 production by Fairchild. The estimated costs are considered to be reasonable, and lower than estimated costs of activating other possible selections.

10. Upon approval of this project, it is recommended that your headquarters notify CONAC, other services, agencies and tenants involved to vacate the premises. Partial occupancy by Fairchild is recommended by December 1, 1950.

For the commanding general:

ALFRED H. JOHNSON,

*Brigadier General, USAF, Chief, Industrial Planning Division.*

Approval recommended.

ORVAL R. COOK,

*Major General, USAF, Director, Procurement and Industrial Planning.*

Senator FLANDERS. Do you have a recollection as to this letter, Mr. McCone?

Mr. McCONE. No, I have no recollection of the letter. I see it was to be approved by General Cook. I do not know whether he approved it or not. I have never seen it.

That letter was never brought to my—

Senator FLANDERS. This is the first time you have seen that letter?

Mr. McCONE. The first time I have seen the letter; yes, sir; although I knew—

Senator SYMINGTON. Will the chairman yield?

Senator FLANDERS. Yes.

Senator SYMINGTON. Here it says, "Wherein it was recommended by General Cook."

Was it written by General Cook or written by a subordinate and given to General Cook?

Senator FLANDERS. This is signed by Brig. Gen. Alfred H. Johnson and approval is recommended.

Senator SYMINGTON. Was the original letter signed by General Cook?

Senator FLANDERS. General Cook signed his approval.

Senator SYMINGTON. I note here on another question, the top of the next page, you say also that the C-119 recommendation was going to be made and scheduled for Omaha, Nebr.

So presumably some people recommended Omaha, and some people recommended Chicago, and some people recommended Willow Run. All of these preliminary papers, Mr. Chairman, with respect to a decision, I respectfully submit are comparable to exactly what you and I would have done in business.

We would have gotten a good many recommendations from a good many different people and then we would have made a decision.

As to whether that decision was sound or not, I am not commenting on. In my experiences in the Air Force there were times when you could get as many as 20 recommendations with respect to how an airplane should be made, where it should be made, when it should be made, how many should be made, and what the cost of the airplane was. Thank you.

Senator FLANDERS. Did you, Mr. McCone, receive any recommendations of this sort for the Willow Run plant? Any documented recommendation?

Mr. McCONE. No, I did not. The recommendation I received was the recommendation that evolved in the meeting which I have discussed, and I have opened my notes here and I find that at that meeting there was in attendance General Cook, and also Gen. A. H. Johnson. Is he the party that signed that letter?

Senator FLANDERS. Yes; Gen. A. H. Johnson.

Mr. McCONE. He was also in attendance at the meeting. So I can only draw the conclusion that between October 20 and the 15th of December a reconsideration of the entire production program caused a change in the position of the command.

And that of course is unanswerable.

Senator FLANDERS. I would like to interpose a question at this point. You have expressed some difference of opinion as to the figures of the ratio of cost of Willow Run to the ratio of cost at Hagerstown. Even though it is two and a half to one or two to one, or four or five to one, as it appears from our figures, does it not seem that it was a mistake to give the contract to Willow Run?

Mr. McCONE. It is very easy to Sunday-morning quarterback these things, Mr. Chairman.

I do not feel that those who entered into this decision could have, in December 1950, anticipated the costs which are reported to have developed. I have not examined those costs myself.

Senator FLANDERS. Of course that in a way is reaching the end of this investigation before we get there. But I have been impressed, as we have gone along, from question to question and answer to answer, with how you feel that everything was done regularly and in order and with good judgment, until we finally bump up against this end result.

I am just wondering whether there was not some point along in there, in the orderly progression, at which a caution should have been indicated which was not used.

Mr. McCONE. I was concerned over the matter of putting aircraft production in a commercial plant that was out of its commercial production because of the possibility that labor and more particularly overhead would find itself way into aircraft production and inflate the cost unnecessarily. For that reason, I wrote a memoran-

dum, and I would like your permission to make reference to it and to insert it in the record.

Senator FLANDERS. You may do so.

Mr. McCONE. This was written on January 5, 1950. It was addressed to General Wolfe, General Chidlaw, who is the commanding general of the Air Material Command—

Senator SYMINGTON. I do not believe you mean January 5, 1950, do you? You were not in the Air Force at that time.

Mr. McCONE. I beg your pardon. It is 1951. I am reading from the staff papers. Also General Cook. Copies of it were sent to Assistant Secretary Zuckert, General Rawlings, who is the comptroller of the Air Force, and to Mr. Frank Roberts, who is my special assistant on renegotiation matters.

I would like to read 2 or 3 paragraphs of this letter, if I may. I said:

I have been thinking about the contracts that you are or soon will be negotiating with General Motors and Kaiser-Frazer and others who are to manufacture airframes and components for us in facilities now producing commercial products.

Senator SYMINGTON. I did not understand that. Would you mind starting off again and reading it so we can all hear it?

Senator FLANDERS. I may say we come to this a little later. I do not think there is any objection to your reading it now. But it is one of the things on which we have some questions.

Mr. McCONE (reading):

I have been thinking about the contracts that you are or soon will be negotiating with General Motors and Kaiser-Frazer and others who are to manufacture airframes and components for us in facilities now producing commercial products.

It seems to me that these contracts will be quite unusual and therefore I believe should receive the personal attention of the senior people in the Air Materiel Command.

What concerns me most is the danger that work will become "loaded" with a great many costs that are properly attributable to the commercial enterprises that are being terminated and therefore are not properly a part of the cost of Air Force work. Definition of "cost" must be studied carefully.

All companies who go through a period of transition from commercial to defense production will have a vast readjustment in their overhead organization. Many departments necessary for commercial activities, most particularly the sales department, have very little, if any, part to play in a company or division producing exclusively for the Air Force.

The same is true to an extent with a large segment of the engineering department, particularly that portion of the engineering department devoted exclusively to commercial product development.

Also there will be a great deal of direct and indirect labor that will not be usefully engaged on our work until tooling has been completed and production lines started.

Naturally, the manufacturers will desire to hold this labor, but if they do this to the extreme, idleness and excessive costs will result. We must be protected from this eventuality.

Another point is the depreciation on excessive facilities.

And then I close:

I would suggest that in negotiating the contracts, careful attention be given to the definitions of admissible costs and other features of the contracts designed to protect us against unusual features of the above transactions.

Senator SYMINGTON. Would the chairman yield for one more question?

Senator FLANDERS. Yes.

Senator SYMINGTON. Mr. McCone, just to get the facts on the table, did you not write that memorandum because you were afraid

that the not going too well automobile overhead of Kaiser-Frazer would be dumped on the aircraft contracts?

Mr. McCONE. That is what it said, yes, sir.

Senator FLANDERS. Will you explain to the committee why you thought that Kaiser-Frazer would be a satisfactory contractor when you have so clearly expressed the necessity for watching them?

Mr. McCONE. I did not confine that letter, nor did I confine my views at the time, necessarily, to Kaiser-Frazer, although I think their situation was of greater concern. May I point out that we were activating General Motors at Kansas City, we were putting engines in Buick and in Chevrolet and Ford and elsewhere.

We were also employing other important subcontractors, such as Brill and A. O. Smith.

So the problem was industrywide, although in answer to your question, Senator Symington, I think it was concern over the Kaiser-Frazer situation that led me to write this particular letter.

In answer to your question, Mr. Chairman, I felt then and I still feel that it is a controllable situation. I do not think that it was sufficiently compelling to dictate a policy on our part of not using commercial producers for our requirements.

I felt care should be exercised in the administration of the contract, and I have made inquiry since, incidentally, and I am satisfied that the Air Force has been very careful.

They have had many, so they report to me, many audit teams and have selected their best men for Air Force representatives in these particular situations.

Senator FLANDERS. When did that cautious and intense activity begin, do you know?

Mr. McCONE. I do not know, sir. I know it began with me on January 5 because I wrote the letter.

Senator FLANDERS. I am just wondering whether there was not a stepping-up of that activity along in July 1952 when we began to get interested in it?

Mr. McCONE. It might have been. I was out of the Air Force then so I cannot answer that.

Senator FLANDERS. Going back to the Chicago project you said that quite evidently General Cook had changed his point of view with regard to the Chicago-Fairchild recommendation.

Senator SYMINGTON. Excuse me, Mr. Chairman, does the record show that General Cook approved that memorandum?

Senator FLANDERS. Yes, it does.

Senator SYMINGTON. Thank you. The copy did not show it.

Senator FLANDERS. The copy of course does not have his signature, but the indications are that this is a correct copy that he approved.

Senator SYMINGTON. Thank you.

Senator FLANDERS. Can you give any explanation, Mr. McCONE, as to why the recommendations in that letter of October 23, seemed to have been ignored when the decision was made on December 15 to award the contract to Kaiser-Frazer?

Mr. McCONE. No.

Senator FLANDERS. You were present at the meeting?

Mr. McCONE. Of December 15, yes.

Senator FLANDERS. Do you have any recollection of any discussion as to why the Chicago-Fairchild project was abandoned?

Mr. McCONE. It was discussed at the meeting. It was not discussed in the light of this particular recommendation. But the use of Chicago and Omaha and other plants were discussed at the meeting.

I recall that definitely. General Cook said, and I would like to read to the record—I cannot put my hands on it now and I do not want to delay you—what General Cook said at the meeting was that if our problem was securing immediate production of a specific and limited number of planes which required a source in addition to Hagerstown, then he would favor the activation of a standby plant under Fairchild's management.

But if the problem was both the procurement of planes and at the same time the establishment of the broadest possible base for future expansion along lines of the directive of the President and the Secretary of Defense, then he would favor the Willow Run facility.

The notes of the meeting also show that General Chidlaw, who is the commanding general of Air Materiel Command, confirmed the point of view of General Cook.

I would think—he would be a much better witness on this subject than I—I would think that what happened is between October 20 and the December 15 meeting the Air Materiel Command became more impressed with the policies of higher authority in connection with this broad mobilization base, the establishment of productive capacity for 50,000 airplanes per year, whether we were going to buy the airplanes or not.

That grew slowly and finally was pronounced vaguely in a speech by the President on the 15th of December, but specifically in his state of the Union message on January 8, 1951, and also in his budget message on January 15, 1951.

Senator FLANDERS. However, that point of view had been informally expressed to the Department of Defense before the public pronouncements of those dates that you have given?

Mr. McCONE. Oh, yes, many, many times.

Senator FLANDERS. There is a mobilization plan of the Air Force No. MA-5, effective as of November 10, 1950, which calls for a somewhat similar plan to the Fairchild-Chicago, only in this case it is Fairchild-Omaha.

Can you tell why this plan was never put into effect? That was for 185 airplanes per month at that facility. We are still talking about C-119's. Why was that not put into effect?

Mr. McCONE. In answering that question, I would like to take a minute to comment on this whole matter of mobilization planning. In 1946 or 1947 the Air Force, as well as the other departments of the military, felt that they must have plans for their production in the event of all-out mobilization.

You are very familiar with that, Mr. Symington. The thinking was what would we do if we had to go into all-out mobilization, what plants will we use, what will we put here and what will we put there. These studies were conducted over a period of years for the utilization of the available facilities in the United States.

It was conceived that mobilization would be on, that commercial and civilian production would be reduced to a minimum as it was during the war, that all of our resources would be consecrated to the war effort.

It was that type of thinking that went into this so-called mobilization planning. The end product could not be divided off. You could not very well take 5 percent of it or 10 percent of it or you ran into many problems where in many instances the plan was impracticable, except in a case where our total resources were devoted to war.

Omaha was one of those examples. Here we had, in the Omaha plant, housed the Strategic Air Command. We had, and still have, several hundred officers there and a very, very sensitive organization.

Senator FLANDERS. What do you mean by a sensitive organization?

Mr. McCONE. It is the center of a very important communications system. The moving of those men and the relocating of them, and the moving of the facilities that they operate, was a big job. It was a costly job, but likewise it was a disturbing thing to do.

Normally, in all-out mobilization you would do that because you could take a Federal building in Kansas City, maybe, and put them there, or you would have other places to go. But that was not quite the situation this time. We would have to go out and build new facilities, relocate the Strategic Air Command, and then turn the factory over to manufacturing.

In a period of partial mobilization we chose not to do that. That is why, in this instance and in many of these mobilization studies, they just didn't apply to this partial mobilization that we were working out. I wanted to explain that to the committee.

Senator FLANDERS. Do you feel that you have given a sufficient answer to the question as to whether this MA-5 was revised as of December 12, 1950, to substitute the Kaiser-Frazer plant?

Mr. McCONE. I am really not familiar with MA-5, Mr. Chairman. I assume I was at the time, but I have forgotten it and cannot identify it or recall it to my mind by the symbol number.

Senator SYMINGTON. Will the Chairman yield at that point?

Senator FLANDERS. Yes, I will yield to the Senator.

Senator SYMINGTON. Mr. Chairman, the Strategic Air Force is the center of the strategic air power of the free world. It was put into Omaha—I think I approved of that myself—after a great deal of investigation and General LeMay's approval and others. It would seem incredible to me, regardless of any staff study made in the Air Force, that in order to make a cargo plane, a secondary source for a cargo plane, that you would root up this Strategic Air Force where you spent a good many million dollars over a period of years to get it established at that point, not too close to the border, not too far south, and other classified things, in order to make a cargo plane.

I don't know who made the MA-5 study with respect to Omaha. I don't think it would have been sound to have moved the Strategic Air Force in order to build a C-119 cargo plane.

Senator FLANDERS. May I ask a question of the Senator as well as the former Secretary?

Senator SYMINGTON. It will be a pleasure.

Senator FLANDERS. I take it that this Strategic Air Force was located in manufacturing-type buildings.

Senator SYMINGTON. That is largely correct, except those buildings at the time, as I remember it, were not being used for manufacturing use but for tool storage. Is that correct?

Mr. McCONE. That is right. It was a shutdown plant.

Senator SYMINGTON. Also you have an operating field there, per se, and with relatively slight additions you had a field. And there were very few fields like it that could handle the B-36.

Senator FLANDERS. The point that you are making, Senator, is that while you would naturally shift this over at an advanced stage of war production, you would not do it as an initial stage of expansion?

Senator SYMINGTON. My only point is that this was a staff study and there are probably a great many staff studies that recommend something in addition to the C-119. But inasmuch as you felt that it was important that he answer the question on this particular study, I just wanted, in an effort to support the witness, to say that I don't see how you could make that decision of moving the Strategic Air Force from Omaha in order to put a secondary source for the C-119 into that establishment.

Senator FLANDERS. As a matter of fact the revised production schedule is exactly the same as the original, except that Fairchild Omaha is erased from this point and replaced by Kaiser-Frazer. So it was a definite shift, without any other shift, from one producer to another.

Who directed Air Materiel Command at Wright Field on December 5, 1950, to revise this mobilization plan MA-5 so that the Kaiser-Frazer Willow Run plant would be included in it?

Mr. McCONE. I cannot answer that question. I do not know.

Senator FLANDERS. Is it not the usual procedure, prior to the awarding of an airplane contract, that the Air Force makes a facility study in order to determine the usability of a plant and its need in the Air Force program?

Mr. McCONE. Generally, yes, except where it involves the production of a plane or an engine that is thoroughly familiar to the engineers and the officers of the Air Force, and in that instance detailed studies are not necessary.

The situation was unique with regard to the B-47. That was a new plane. It was the first jet bomber to be produced and the production of a jet plane of that type involves techniques of manufacturing entirely different from the manufacture of a plane of the C-119 type. The C-119 is a very conventional article, a very good article, but the manufacturing techniques are very similar to those employed through the years.

Senator FLANDERS. It is my recollection that in answer to an earlier question you indicated that the Wright Field investigation, or interest in the Kaiser-Frazer plant at Willow Run, was based on available space and available labor.

Mr. McCONE. Yes, sir. That is correct.

Senator FLANDERS. Do you know whether they made an investigation as to the additions to the productive machinery that would be required?

Mr. McCONE. I presume that they did. I am sure that they did. What they needed was a complete line of tools and tooling for the production of an aircraft, because there were none in the plant at all.

Senator FLANDERS. So it was a question of space and labor. Do you know whether they made any investigation as to the efficiency of the organization as an organization?

Mr. McCONE. I think that the officers who were actually in touch with the organization and carrying on the detailed negotiations would be better witnesses than I on that question.

Senator FLANDERS. Would you think that such a study would be a proper part of any investigation as to the---

Mr. McCONE. Yes, I think they should and undoubtedly did satisfy themselves concerning the capability of the management.

Senator FLANDERS. Again I feel like I am jumping ahead to the end result but I will forebear.

In a letter to a Congressman, dated June 10, 1952, you pointed out that studies were made of production of several types of aircraft at Willow Run, including the Fairchild C-119, after December 5, 1950.

Can you tell the committee what planes were studied and who made them?

Mr. McCONE. As I explained to the staff, that letter, which was written in Los Angeles and purely from memory, was in error insofar as apparently the only specific detailed studies that were made were in the production of the B-50 medium bomber and later the B-47 jet bomber.

Senator FLANDERS. Can you have the Air Force furnish a copy of these studies for the record?

Mr. McCONE. I can. If the chairman would request the Air Force—I have no authority to request the Air Force to release their studies. I am sure they would be very glad to do so.

Senator SYMINGTON. You are a Republican, aren't you?

Senator FLANDERS. We will leave that on the record. I am glad to find an official during the Democratic administration who was a Republican.

What was the recommendation that you received from Air Materiel Command and the Air Staff, providing for the establishment of a production line of C-119's at Willow Run?

Mr. McCONE. It was an oral recommendation made at the meeting of December 15, at which time the various alternate possibilities for the accomplishment of the C-119 production were discussed in view of, first, the requirement and, secondly, the excess production capacity desired.

The recommendations I think ran in this way: If our problem was for the quick production of a limited number of planes, then it would be best to utilize the Fairchild Co. in a shadow plant by activating the plant.

If on the other hand we wanted to accomplish production and in addition create a broad base for further mobilization if need be, consistent with the directive of the President and the Secretary of Defense, then it would be their recommendation to utilize Willow Run.

Senator FLANDERS. Do you at this time wish to affirm or disaffirm a statement you made in a letter to a Congressman dated June 10, 1952, in which you indicated you approved the contract award to Kaiser-Frazer sometime in January of 1951?

Mr. McCONE. I think I approved it before that. What I did, sir, was that following these recommendations to which we gave tentative approval on December 15, 1950, I conferred with the Secretary of the Air Force and then I released the Air Materiel Command to take



procurement action, subject, however—to the working out of proper contractual arrangements with the contractor involved.

Senator SYMINGTON. May I ask a question?

Senator FLANDERS. Senator Symington?

Senator SYMINGTON. Who is the Congressman involved?

Mr. McCONE. The Congressman was Representative Alvin O'Konski.

Senator SYMINGTON. You wrote him a letter on June 10, 1952?

Mr. McCONE. That is correct.

Senator SYMINGTON. "To a Congressman" has been referred to several times. Would you care to discuss the circumstances about that?

I do not know them and perhaps the Chair would be interested in that. Why were you writing him and why was he writing you?

Mr. McCONE. I am very glad to discuss that.

On May 21, 1952, Congressman O'Konski delivered a speech on the floor of the House in which he bitterly criticized Mr. Henry Kaiser and all of his activities and he made this statement, among other things, and this appears on page 5784, column 3 of the Congressional Record:

Now get this, while McCone was Under Secretary of the Air Force he was merely on leave of absence from his position of president of Bechtel-McCone Corp. Now in turn the Bechtel family happens, just accidentally, to be holders of 4,200 shares of Kaiser-Frazer common stock. So McCone gets a convenient leave of absence from a Kaiser outfit, becomes Under Secretary of the Air Force and arranges a nice fat gift for Kaiser, and that is how Kaiser manages to continue to suck defense dollars while our boys in Korea die for lack of planes and plane equipment.

He went on to say in a later part of his speech and referred to me "as a possible link in Henry Kaiser's chain of influence in Washington."

I wrote Congressman O'Konski to deny that statement because that was an untrue statement, and it was an attack on my conduct of my affairs in public office. I did not think that it should stand in the Record since it was definitely not true.

Senator SYMINGTON. Mr. Chairman, may I suggest that the witness read that letter and that it be placed in the record at this point?

Senator FLANDERS. If you will do so.

Mr. McCONE. Yes.

Senator FLANDERS. You have already read down to and including that first reference.

Mr. McCONE. I will read the following opening paragraph:

My DEAR MR. O'KONSKI: I have just received photostatic copies of the Congressional Record of May 21 in which your remarks concerning contracts between the Air Force and the Henry J. Kaiser interests are recorded. I am writing you because in your statements you make reference to my activities as Under Secretary of the Air Force, which position I held from June 15, 1950, until October 12, 1951.

Your statements in my regard involved, in my opinion, an attack on my integrity while in public office, and since they are erroneous, and furthermore, are drawn from statements of conditions in my personal affairs which are not consistent with fact, I think my position should be clarified.

With specific reference to page 5784, column 3, you state, and I quote:

"Now get this, while McCone was Under Secretary of the Air Force he was merely on leave of absence from his position of president of Bechtel-McCone Corp. Now in turn the Bechtel family happens, just accidentally, to be holders of 4,200 shares of Kaiser-Frazer common stock. So McCone gets a convenient

leave of absence from a Kaiser outfit, becomes Under Secretary of the Air Force and arranges a nice fat gift for Kaiser, and that is how Kaiser manages to continue to suck defense dollars while our boys in Korea die for lack of planes and plane equipment."

The facts are these:

The Bechtel-McCone Corp., which was owned principally by S. D. Bechtel, K.K. Bechtel and me, but in which Mr. Kaiser at no time owned an interest directly or indirectly, was dissolved in December, 1945, and has not engaged in business activities since that time.

Going out of context from the letter, that is the corporation from which I presumably had taken leave of absence to go with the Kaiser outfit. It had been dissolved for several years and secondly Kaiser never owned any interest in it whatsoever. Going on with the letter:

Messrs. Bechtel and I own stock interests, or joint venture interests, with others in various enterprises, including shipping companies, insurance companies, and construction activities. It was from two of these companies that I took leave of absence to serve as Under Secretary of the Air Force. Mr. Kaiser did not, directly or indirectly, possess any interest whatsoever in either of these companies, nor has he, for a great many years, possessed an interest in any company, joint venture, or any business undertaking that has been under my direction. Conversely, at no time have I been in the employ of Mr. Kaiser nor any corporation controlled by him.

While the Kaiser companies and companies owned by the Bechtel interests and myself held interests in corporations or joint ventures which were engaged in war working during World War II, all such mutual interests were dissolved shortly after the conclusion of World War II and many years prior to the time I undertook the assignment as Under Secretary of the Air Force.

With regard to the Bechtel family's ownership of Kaiser stock, I have no knowledge whatsoever.

Undoubtedly, Mr. Bechtel purchases stock in the market from time to time, but I am not familiar with his personal holdings. While I do not know whether he did or did not own the 4,200 shares of Kaiser-Frazer stock to which you refer, certainly such a holding would have absolutely no effect upon me.

On page 5787 you mention Walston Brown and Clay Bedford and me as possible links in Henry Kaiser's "chain of influence." I believe this statement is misleading because I have had no business relationship with Kaiser for years; I took no leave of absence from any company in which he possesses an interest; I have no benefit to gain from the affairs of his companies. The statement, therefore, that was a link in Henry Kaiser's "chain of influence" should be corrected.

The balance of the letter deals with the C-119 problem, and is repetitious of what we have been discussing. I would be glad to read it if it would be of value. I can submit it for the record.

Senator SYMINGTON. May I suggest, Mr. Chairman, that he not read the rest, which he says is repetitious, and put it in the record, because that has to do with the C-119?

Senator FLANDERS. He can put that into the record.

(The remainder of the document is as follows:)

Now with regard to the award of a contract to Mr. Kaiser to build first the Fairchild C-119 airplanes, and later the Chase C-123 aircraft, the situation was as follows:

Ever since the acquisition of the Willow Run plant by the Kaiser-Frazier Co., the plant had been considered as part of the industrial mobilization plan of the Air Force, having been so assigned by the Munitions Board. The plant was sold with so-called national emergency provisions included in the contract. These provisions stipulated that, in the event of certain emergency conditions, the plant could be called upon for production of essential war materials. The Congress further provided that the plant should be operated by the purchaser, unless the purchaser either refused, or was proven incapable of so doing. I am recalling these provisions from memory, as I have no files available, but you are undoubtedly fully familiar with the provisions of the law in this regard.

From time to time the Air Force had arranged for Kaiser-Frazer to study the use of the Willow Run plant for the production of several different planes, including fighters, bombers, and transports.

Mr. Kaiser called on me in December of 1950, offering the services of the Willow Run plant, and his organization, for any use for which we desired. He pointed out that Willow Run was assigned to the Air Force by the Munitions Board, and stated that curtailed automobile production made available a substantial production capacity and a large organization of trained men. He went further to state that if the Air Force did not wish to make use of the plant, he would like to have us release it from our industrial mobilization reserve, so that the plant could be made available to other services for the manufacture of other types of war equipment.

I introduced Mr. Kaiser to the Deputy Chief of Staff for Materiel, Lt. Gen. K. B. Wolff, who arranged with the commanding general of the Air Materiel Command at Wright Field for an investigation of the use of the facility and the determination of its need in our program. Studies were made of the production of several types of aircraft at Willow Run, including the Fairchild C-119. It was Defense Department policy to create multiple sources of all major items of equipment, including air frames, engines, etc., and in compliance with this policy additional sources for several planes were needed. To meet this requirement, the Air Force considered the use of operating plants that could be made available and as an alternate, the reopening of standby facilities. Both were used.

About a month after our initial discussion, I received a recommendation from the Air Materiel Command, and the Air staff, providing for the establishment of a production line of C-119's at Willow Run. This involved a sizable initial contract with Kaiser-Frazer. This I approved.

The Air staff and I both recognized that the Kaiser organization had not had aircraft experience, but it was agreed that the Willow Run facility was needed in the program, and the available manpower being released from automobile production would be most useful. The recommendation to employ Kaiser-Frazer on the C-119's, rather than a more complicated plane such as the B-47 jet bomber, was based on the assumption that an inexperienced organization could proceed with less difficulty on the less complicated aircraft such as a cargo type, and furthermore, the Willow Run facilities were more readily adaptable to the construction of the C-119 than to the manufacture of other types of aircraft.

My purpose in reviewing this negotiation is merely to explain the reasons for the decision to initiate aircraft production in the Willow Run plant under the direction of the Kaiser-Frazer Co.

In summary, the Air Force felt that its program demanded the use of the Willow Run facility, which had been sold to the Kaiser-Frazer Co., the sales contract including the national defense provisions. A study by the Air Force developed that desired use of the facility was in the construction of the C-119 aircraft. Having reached the decision that the Willow Run facility was necessary under the Air Force program, we were obligated to employ the Kaiser-Frazer Co. in the operation of the facility providing they were willing to operate the plant for us, and were capable of so doing.

These were the only considerations that entered into my decision in this matter. Since you make reference to the Reconstruction Finance Corporation, I would like to say that no officer, director, or employee of the Reconstruction Finance Corporation discussed the Kaiser-Frazer matter with me or to my knowledge with anyone connected with my office, or in the Air Force, directly or indirectly, during the negotiation.

I would very much appreciate any steps that you might take to correct the record, as I think that you will agree with me that the record, as it now stands, wrongfully condemns me for indiscretion in public office.

Yours very truly,

JOHN A. McCONE.

Senator FLANDERS. I would now suggest that we adjourn until 2 o'clock, but before we adjourn it would be proper for either of the other two Senators to ask questions on the material we have been over to this time.

Mr. Duff?

Senator DUFF. You will be here this afternoon, will you not?

Mr. McCONE. Yes, sir. Could I read the final paragraph in this letter?

Senator FLANDERS. You may.

Mr. McCONE (reading):

I would very much appreciate any steps that you might take to correct the record, as I think that you will agree with me that the record, as it now stands, wrongfully condemns me for indiscretion in public office.

Representative O'Konski has chosen not to answer that letter. He has refused to accept me at his office or phone calls from me. One thing I am going to ask this committee to do, if they will, is to correct the Congressional Record for me.

Senator SYMINGTON. Mr. Chairman, may I ask a question?

Senator FLANDERS. Just a moment. Let me see what is involved in that. You say correct the Congressional Record? Do you mean to go back to the House Record and insert this letter?

Mr. McCONE. No, sir. Just make a statement of the facts, which I think that your staff has assembled.

Senator FLANDERS. We will take that up before the full committee, that is, the full investigating committee.

Senator Duff?

Senator DUFF. I wonder if we could adjourn until 2:15 instead of 2 o'clock?

Senator FLANDERS. Yes, we will when we adjourn.

Senator SYMINGTON. Could I ask a question?

Senator FLANDERS. Yes.

Senator SYMINGTON. The implication which you have just read is that you might have been working down here to give contracts to the Kaiser-Frazer Co. because there was some pecuniary or other relationship between you and the Kaiser-Frazer Co. Would you please comment on that?

Mr. McCONE. Yes. There was no relationship, and the indication that I had anything to gain directly or indirectly is entirely wrong. It is true that during the war my companies, as I have stated, together with the Kaiser companies and a number of other companies, were engaged in joint venture undertakings, some of which took the form of corporations, in shipbuilding and other activities. But those had long since been liquidated.

I gave some serious thought at the time that this matter was up to disengaging myself from this decision because it might be said that this background, however remote, might have influenced my decision. I came to this conclusion: That I had been asked to come here to do a job for the Air Force. Since my relation with Kaiser and any other business interests that were doing business with the Air Force was not such as to in any way influence my decisions, I felt that I would be derelict of duty if I failed to join with my associates in the Air Force in these matters.

If my relationship had been such that I could not, without prejudice, engage in the decisions, I would have readily removed myself from the decision.

But as Senator Tydings will recall, when I appeared before you Senator Byrd asked me this specific question, and I said, and I think the companies which I had taken leave from filed letters with your committee, Senator Tydings, to the effect that they had no interest whatsoever in any activities with Kaiser-Frazer.

Senator FLANDERS. Any further questions?

Senator SYMINGTON. I have no further questions until after lunch.  
Senator FLANDERS. The committee is adjourned until 2:15.  
(Whereupon, at 12:18 p. m. the committee recessed, to reconvene at 2:15 p. m.)

AFTERNOON SESSION

The subcommittee met, pursuant to recess, at 2:19 p. m., in room 212, Senate Office Building, Senator James H. Duff presiding.

Present: Senators Duff (presiding), and Symington.

Also present: Fred Rhodes, chief counsel; James Anton, special counsel, and Harold M. Devlin, accountant.

Senator DUFF. Mr. McCone, is it fair to assume that if there had not been the urgency in getting the C-119's in a short period, that it would have been reasonably easy to have found some other builder that could have duplicated the performance of the Fairchild's?

Mr. McCONE. No. Any new source would have been in the initial stages very much higher in cost than Fairchild was experiencing at Hagerstown.

Fairchild themselves, at another plant, where they would have to go through the problems of starting operations and the so-called learning curve—an expression common in industry—would have experienced costs which would have been very much higher than they were then experiencing at Hagerstown.

We knew that and, as I mentioned in my statement, at no time did the Air Force suffer under any illusion that this matter of starting new facilities in production, whether it be in engines or in airframes, was without very considerable cost.

Senator DUFF. Nevertheless, if there had been long-range planning instead of a hurry-up job, the expense could have been vastly reduced from the ultimate figures that appeared that the Kaiser-Frazer people charged for these planes.

Mr. McCONE. There is no question about the fact that if long-range delivery planning had been done, the minimum cost would have been realized.

It also must be borne in mind that as to this plan of activating the second source for the C-119, as a second source, whether it be Willow Run or some other location, the thought in the mind of the Air Materiel Command and the Air Staff was that they were tooling a plant to produce not less than a thousand of these aircraft.

In fact, the schedule A-13, which I have referred to and which was the accepted agreed schedule upon which this procurement action was taken, called for 1,061 airplanes to be delivered from this second source.

You average the tooling costs, the plant arrangement costs, the learning and experience factors over a thousand airplanes and you find you get a very much different answer than when you have 159 or 160 as a divisor.

I do not say that in any way in defense of what appear to be some very high costs, and I am sure from the questions of the committee that the committee feels that way.

But I do say that the large number of planes to be procured was a factor that affected the judgment of the Air Materiel Command in making their recommendations on which the staff and my office acted.

Senator DUFF. As a civilian taking for granted what I assume is generally recognized, that the Russians in their air force have continuously built up and expanded their air arm from the very end of

World War II, would not a quicker appraisal of what Russia was doing have enabled us, by longer range plan and procurement on that basis, to have prevented the vast amount of excess costs here?

Mr. McCONE. Most certainly. I just could not agree with you more, Senator. I would like in that connection to point out that had we not only an earlier appraisal made, but had the Government authorities acted on the appraisals that were available in 1946 and 1947 and started an orderly buildup of the Air Force, then some of these serious problems and high costs that we witnessed in 1950 and thereafter would not have occurred.

I would like to go further and say that if the administration had not impounded but had spent the money that was appropriated by the Congress for the procurement of aircraft, the situation would have been alleviated.

Senator DUFF. In other words, excessive costs are definitely associated with failure to take a long-range view, especially when you have a hurryup like you did on the C-119's.

Mr. McCONE. And all other aircraft. I could go on on that subject for a long time but I do not want to take the time of the committee.

This start and stop in the field of not only the production of weapons but in all other phases of military establishment, the training and the operational end of it, is just expensive beyond belief.

Senator DUFF. I mentioned the Air Force only because that is the subject under immediate investigation. I assume that that observation would apply to the whole military setup in the country?

Mr. McCONE. That is correct.

Senator DUFF. You mentioned this morning that you were concerned about the possibility of producers charging off costs to Government work which should have been carried by their civilian production.

You said specifically that you were concerned about the Kaiser interests.

I wonder if you have any knowledge about the condition of their automobile business that prompted that feeling and resulted in your memorandum of 1951?

Mr. McCONE. No, I had no specific information. No specific information.

I had the general knowledge that you gain from gossip and the articles that you see in the paper on the production of various automobile companies and so forth. That is all, I suppose, that influenced my thinking. But I had no specific information on it.

Senator DUFF. One other question. You mentioned a goal of 1,800 planes of the C-119 class. We have had presented to us a list of actual production. At no time when you were in that position did they approach that production, did they?

Mr. McCONE. Oh, no sir. You see, it was long after I left the Air Force before any planes were produced from Willow Run.

The Fairchild Co., which in June of 1950 was producing at the rate of eight, was building up gradually and I do not have the figures on where they were by October 1951, but they were only part way in their expansion.

Senator DUFF. Senator Symington?

Senator SYMINGTON. Thank you, Mr. Chairman.

Mr. McCONE, you first became interested in our airpower picture, did you not, as the military adviser to the Finletter commission, is that correct?

Mr. McCONE. Yes. That was the first time that I started to see the problem from a, let us say, Government standpoint.

I had been interested in it from a civilian standpoint before that.

Senator SYMINGTON. You became a member of the Finletter commission upon the retirement of Mr. Henry Ford, II, did you not?

Mr. McCONE. That is correct. Shortly after that commission was established Henry Ford, as you will recall, was one of the members. I was asked to be the technical adviser on military matters and then when he resigned, which was only a few days after the commission started its work, I was asked by the President to become a member and I did so with the understanding that I could continue on as the military adviser in addition to being a member of the commission.

But I served in a dual capacity.

Senator SYMINGTON. As I remember that Commission, some of us persuaded the President of the growing importance of airpower and you were appointed in the summer of 1947.

You made your report in January 1948, is that correct?

Mr. McCONE. Yes. I think that is correct.

Senator SYMINGTON. In that report you had a unanimous recommendation of the Commission that the minimum air force, the necessary air force for the minimum peacetime security of the United States was a 70-group air force, is that right?

Mr. McCONE. That is right. We made two recommendations: One, the 70-group air force. Then we made specific recommendations concerning the maintenance of the air arm of the Navy.

We were deeply impressed with the role of airpower. While we felt that the Air Force was going to carry the heavy end of it, we thought both air arms of the Defense Establishment should be kept right up.

Senator SYMINGTON. At that time you also had a committee called the Joint Congressional Aviation Committee, which was chaired for the House by Congressman Hinshaw, and for the Senate by Senator Brewster?

Mr. McCONE. That is correct.

Senator SYMINGTON. In a Republican-controlled Congress?

Mr. McCONE. That is correct.

Senator SYMINGTON. I remember that everybody was worried about the fact that the report of that committee might differ on the down side with the Finletter Commission report that you were on, but actually they, counting reserves, recommended more airpower than you did, is that correct?

Mr. McCONE. Yes. As I recall their report came out about 3 months after ours. Their activity forces were substantially the same as ours. They made some recommendations concerning war reserves that were greater than ours.

Senator SYMINGTON. Then later on in that year, 1948, you became in effect an adviser to Secretary Forrestal, did you not?

Mr. McCONE. Special Deputy.

Senator SYMINGTON. And you were aware of some of the—if I may use the phrase—fiscal manipulations that went along in the budget at that time, is that correct?

Mr. McCONE. I do not know that you are always aware of all of those things. I might have been aware of some of them.

Senator SYMINGTON. But you were aware of a very definite disagreement between the Air Force and the Department of Defense

with respect to what was necessary in the way of money to do the job that had been prescribed. Am I correct on that?

Mr. McCONE. Yes. I think I was asked by Secretary Forrestal to take that particular post because he felt that I had an appreciation of the Air Force problem and also the naval air problem.

There was a problem there, too.

Senator SYMINGTON. Mr. Chairman, I want to say that I have not discussed this with Mr. McCone prior to this hearing but I would like to ask in all frankness if there are not some characteristics going on today that are remarkably similar to what went on in 1948?

I would ask that you answer this in a true bipartisan spirit.

Mr. McCONE. I have not had the benefit of any studies of the air program or the budget. I have been told something of how the numbers were arrived at. Other than that, I only know what I read in the papers. I only hope that without in any way commenting on whether the figures are adequate or are not adequate, that the matter is approached in a way that the judgment of the men who are most familiar with the problems is brought to bear on problems before the answers are finally arrived at.

I think it is highly important in all these things to get the judgment of the officers and the technicians who are working on these things continuously because they are the men who really know.

Senator SYMINGTON. Mr. Chairman, I would like to pursue that line of questioning but I do not think it is proper in this hearing because it does not involve it.

I would like to take up something the chairman just mentioned and that is the question of planning and programing.

Let's run through some figures. At the end of World War II we had around 245 groups to the best of my knowledge. Do you think that would be about correct?

Mr. McCONE. That is right; yes, that is the figure.

Senator SYMINGTON. It was my dubious pleasure under instructions to cut that as rapidly as possible to where, in 1947, we were down to 38 groups. Then we recommended 70 groups due to the increased suspicion that the Russians might not be as friendly as was originally thought at the end of the war.

We recommended 70 groups and got 58. Is that correct?

Mr. McCONE. Forty-eight or fifty-eight?

Senator SYMINGTON. Fifty-eight?

Mr. McCONE. Yes.

Senator SYMINGTON. So we go from 245 to 38 to 58. Then in 1949 we went to 48. Is that your memory?

Mr. McCONE. That is correct.

Senator SYMINGTON. Then, due to money that was impounded within the Department of Defense itself, we went to 42?

Mr. McCONE. And that is where we were at Korea.

Senator SYMINGTON. In your statement, you have given me some figures. By that time I had left the Air Force. You have some figures, following Chairman Duff's thought about planning, in which you said that we went back from 48 to 52, I think you then said.

Mr. McCONE. To 58.

Senator SYMINGTON. We go from 42 to 58. Then we went to 69.

Mr. McCONE. That is correct.



Senator SYMINGTON. Then we went to 95, is that correct?

Mr. McCONE. That is correct.

Senator SYMINGTON. Then we went to 143?

Mr. McCONE. That is right.

Senator SYMINGTON. Now we are going to something that we do not know yet what it is, from what you know?

Mr. McCONE. That is correct; from what I know.

Senator SYMINGTON. Mr. Chairman, the service that it has been considered necessary to build up—because of the recognition primarily on the part of the Congress and air experts—in importance and to have a reasonably adequately adequate growing strength, has been changed in its basic program about 8 times in the last 5 years.

I would like to make a comment on that. At one time General LeMay was running the research and development program at Wright Field, before he went to SAC. He told me that there had been so many changes in that year with respect to the amount of money that he could have, the Air Force, the changes in the Department of Defense and another change in the Bureau of the Budget, and another change in the White House and a final change in the Congress, and then another change because the money was not spent that Congress appropriated, that there had been no research and development done of any kind whatever during that year.

All the time of the engineers, operators, and accountants had been spent in adjusting to the change in the money. No time had been spent in research and development for a better Air Force.

Mr. McCONE, you are generally acknowledged to be one of the outstanding successful industrialists in this country. Based on the way that the programing and planning of the Air Force has been handled, do you honestly feel, with your experience, that you could run a hamburger stand efficiently?

Mr. McCONE. No. I feel this way, Senator: That had we accepted, had the administration accepted the report of the Commission which the President appointed—

Senator DUFF. Which year was that?

Mr. McCONE. 1947. [Continuing:] In 1948, and the subsequent report of the Congressional committee, and had it gone forward with the program to build to 70 groups in an orderly, thoughtful way, as you suggested, that there would have been two results: One, we would have not had the extreme feeling of great urgency upon the outbreak of the Korean war because we would have had forces in being which could have met that challenge and given us forces to meet other impending dangers throughout the world, and furthermore, we would have had a base on which to expand to any reasonable higher level that the world situation demanded.

The very difficult problem was that having shrunk down so low we had nothing to build on. As I mentioned in my statement, the aircraft industry had shrunk to a bare minimum of operating plants. Just think, Mr. Chairman, of the problem that the planners in the military faced. Here they were suddenly confronted with the need for 1,800 aircraft of a certain type and at a rate of 135 a month.

And the only operation they had in being, efficient as it was, and capable as the organization was, were producing 8 or 9 planes a month.

That is just 1 problem of 1 airplan. But that existed with every bomber and every fighter and every transport plane.

So it was really a very serious problem.

Senator DUFF. What was the amount of funds that was impounded at the time of the outbreak of the hostilities in Korea?

Mr. McCONE. There were four or five hundred million dollars. I think you could answer that, Senator.

Senator SYMINGTON. I was out at the time of Korea.

Mr. McCONE. At Korea?

Senator DUFF. Yes.

Mr. McCONE. I cannot answer that accurately. I can get it.

Senator DUFF. What was the maximum impounded at any time during the interim period?

Senator SYMINGTON. Mr. Chairman, I think in 1948 the amount that was impounded by the administration was \$700 million. In 1950 the amount that was impounded by the Department of Defense beyond what was impounded—and that figure I do not know—by the administration, was \$254 million in the early spring of 1950, of which some \$175 million was new airplane money for procurement.

Senator DUFF. In other words, you had substantially a billion dollars that was provided and available and not used?

Senator SYMINGTON. Yes, Mr. Chairman, I would think that the record would prove, over a period, a good deal more money.

Senator DUFF. I understand that. I mean in this particular situation.

Senator SYMINGTON. In 1948, sir, it ran 700 million. In 1950, about a quarter of a billion dollars.

May I ask a question?

Senator DUFF. Surely.

Senator SYMINGTON. Mr. McCone, we have had some hearings here, some fine hearings on the shortage of ammunition. In that case there was criticism and in my opinion justifiable for a lack of a product.

In this case there is criticism for excessive effort to get a product. Without passing on it, from the standpoint of judgment, I think these hearings are very fine. As usual, Senator Bridges gets in something worth while. To me it shows that unless you do have long-range planning you are bound to have shortages in some cases and overages in others, and above all, you are bound to have a lot of waste as a manufacturer which you have had as much experience in as anybody I know of your age.

Do you agree with that?

Mr. McCONE. Yes, I agree with that completely.

Senator SYMINGTON. Wouldn't you say that the waste in the Pentagon Building with which you have been intimately connected since the first days of unification, that there have been billions and billions of dollars of sheer waste due to the constant reprogramming and replanning, and that that waste is far more than any other waste that they can put their hand on in that building?

Mr. McCONE. Yes, I think that is a fair statement.

Senator DUFF. Could you add reprogramming to that?

Mr. McCONE. No, I think reprogramming, rather than lack of planning, is a cause of the waste. I think if the military had some reasonable assurances that a set of program objectives, once estab-

lished—even though they took a matter of 4 or 5 years to accomplish—were going to be kept firm and buried only through compelling changes in the international situation, or because of scientific development, then I think they could most capably plan.

They are well organized to do a good job of planning. But where they are in trouble is the constant reprogramming due to vacillation and changes in policy of higher authority.

Senator DUFF. So that everything that they have planned has been periodically changed?

Mr. McCONE. That is correct.

Senator DUFF. I think we all agree that this is a vastly necessary investigation because surely the might of the Russian air power compared with ours, when you realize what we had at the end of World War II, is something that concerns every American citizen.

It is also evident that if we continue as we have been we are not going to be prepared when the great day comes.

Senator SYMINGTON. Mr. Chairman, I sat on the National Security Council for a couple of years as the Secretary of the Air Force and then was retired by law and went back on it as Chairman of the National Security Resources Board.

We have one of the great authorities on air power in this country even if he was a ground officer in his day in Senator Millard Tydings. He knows—he is with us in this room—he knows as well as I do that there never was a national policy expressed in the long-range strategic military plan in this country until long after the Russians exploded their first atomic bomb, and long after Korea.

There never was a long-range strategic military plan that was not essentially a compromise between the three services. The fact is that the 143-group program was the closest thing we ever got to national policy and it was a compromise in that the Air Force thought that the 163-group program was right.

But they took 143 in order to get national policy. The way they got to 143 groups as of June 30, 1954, was because it was estimated by that date that the Soviets would have enough long-range bombers—which everybody now knows they have—and enough atomic bombs by that date to make a sudden all-out atomic attack on the United States.

That 143-group program which, incidentally, recently has been subject to considerable ridicule, was only based on an Air Force that would be adequate to meet the Soviets at the time it was considered that they were ready.

Last summer that was chiseled because they said we will not be ready in 1954; we are going to postpone it until 1955.

Last January it was chiseled further. They said we are not going to be ready in 1955, we will just hope that they do not hit us until 1956.

That was bad enough to me, Mr. Chairman. But now it is all gone out the window. We will not be ready in 1956 and what is more important, we are not going to shoot for any target date. We do not plan any more to consider it is important to be ready with adequate defense when the Soviets, we believe, as our military experts do, are ready to attack us.

I claim if that is going to be our new policy it should be based on certain knowledge as, for example, whether or not the Soviet air force is becoming weaker instead of stronger.

But you and I were both here when the Chairman of the Joint Chiefs of Staff told us fairly recently that despite our postponement on the basis of pay-less-and-hope-more, and this reprograming which in itself costs more than a good air force would cost in my opinion, despite the fact that we are doing this to our own Air Force, the figures which we have seen showed that the Russian air force, the Soviet air force, is not only stronger but very, very much more strong than it was even a year ago.

I was interested to note that in May, you might call it, of the great announcement of the theory that we will be stronger by planning to become weaker—that General Bradley himself said there had been no evidence of any kind that the Soviet had stopped their efforts to become supreme in the air.

I welcome these hearings. If anybody knows this subject, Mr. Chairman, it is Mr. McCone, because first he worked on the Finletter Commission, then he worked as a special adviser in this particular subject with Mr. Forrestal, and then he became Under Secretary of the Air Force. I might add that I was glad to see him take that job; I urged him to take it—he did not want to take it because he felt that he might be criticized for some of the things that he would do. I might say in that case he was a pretty good prophet. But I think that the more of this information that we can have on the table as to why we have this waste, in this case and in other cases, the more truth we can get at in these hearings, the more chance we will have as of June 30, 1954, to have a reasonable Air Force.

Senator DUFF. I agree with that 100 percent. I am very sure that there is no subject that the average American citizen is more interested in than a great Air Force. I am also sure that they have been deeply concerned about the public statements of the difference between the cost of one procurement agency and another when it amounted to almost 4 or 5 times as much. I think it is enormously important that all the factors entering into that situation be understood by the public because otherwise they would be very strongly inclined to believe that there were things in the background that did not appear on the surface that might cause such a great discrepancy as \$260,000 and \$1,200,000 for the same type of plane at the same time.

Senator SYMINGTON. Mr. Chairman, could I ask one more question of the witness?

Senator DUFF. Certainly.

Senator SYMINGTON. You know about the Vance report?

Mr. McCONE. Just as I read it in the paper. I have never seen the report itself.

Senator SYMINGTON. If you do not know about it I will not ask any questions about it.

Senator DUFF. I would like to ask these questions for the record. What was the first-cost-per-unit figure that came to your attention with respect to the C-119 as produced by Kaiser-Frazer?

Mr. McCONE. I cannot answer that. I would be calling on my memory. I would like to get that information, or I am sure it will be developed in later testimony. I think it was consistent with the six-hundred-and-odd thousand dollar figure that the chairman mentioned.

Senator DUFF. Naturally offhand you would not have either figures or dates without referring to records?

Mr. McCONE. That is correct, sir.

Senator DUFF. Was there ever any discussion in the Air Force as to the advisability of canceling the Kaiser-Frazer contract due to excessive cost during the period of your tenure in office?

Mr. McCONE. Not while I was there; no.

Senator DUFF. Would you like to ask anything else?

Senator SYMINGTON. I would like to make one observation. There are many hearings going on, and I have to get to the next one. When the loans were made through RFC I was not with the RFC but I was opposed to the entrance of the Kaiser-Frazer Co. into the aircraft business on this contract and I so told Mr. Kaiser. I felt that it would be wrong because I thought it might be difficult to segregate their operating expenses between their automobile business and the aircraft business.

The loans that the RFC had at the time I went with it were pretty closely tied up with the inventory. That is correct as I remember it. I was glad that Mr. McCone put into the record the letter that he wrote in which he pointed out that there might be that particular difficulty with respect to this and other companies.

Senator DUFF. I think it would be generally agreed by all of us that the circumstance of their getting this contract, the granting of the loan, and the very excessive cost as compared with the cost of the standard procurement at that time, would raise a question in the public mind as to whether it was not political rather than in reality a business transaction based on the facts.

I am not making that charge. I am merely stating that I am very sure that as a reader of the public press I would come to the conclusion, without knowing the facts, that there were those entanglements. I think it is valuable for you to make the statement that you did with respect to how that operation took place.

Mr. McCONE. Without in any way commenting on what appear to be the very excessive costs, I think that the circumstances were such that the Air Force officers who appraised this decision appraised the capability of the facilities and the capabilities of the plant, in looking at it objectively and from a distance, I just cannot see how they might have forecast the performance. Everything was there that should have led to reasonably good performance. But it must always be admitted that the initial cost of a second source, whether it be at Willow Run or elsewhere, is not comparable with the cost of an established, going concern. The comparison therefore must be one of whether this article cost, in plant A, what it would have cost in plant B. The Hagerstown facility, as I have said, was booked to capacity, therefore we had to reach out to some other source. And we would have suffered high costs in any event.

Senator DUFF. There is not any doubt in your mind, however, that in the public appraisal of the situation where the one was practically five times the cost of the other, there are very large question marks in everybody's mind as to the connection between those costs, good judgment, and the contract.

Mr. McCONE. I can see how that might readily come up. My view on it, however, Mr. Chairman, is that this committee might well take a very good look at why those costs are high and what the performance was, really what happened. I really do not know. But I, as a former officer of the Air Force, cannot in all conscience criticize the decision, the recommendation and the decision in view of the

known facts and the urgency of 2½ years ago. It is disappointing and it is regrettable, and I am saddened to see what appears to be the result, but sitting in that meeting on December 15, I, who should have known more about it than any other man in there, cannot say now in all honesty that I saw on the horizon danger signals other than the one I wrote the letter about, and that I felt contract administration could take care of.

Senator SYMINGTON. Do you see any danger signals now, with what is going on right now with respect to the Air Force budget, based on your experience in 1948, 1949, and 1950?

Mr. McCONE. My view on the Air Force budget is this and I have expressed this to everyone: I think that in the Air Force and in any of the military organizations there are opportunities for savings. You and I have talked about it many times. I would first, before making my plea, effect every possible saving that I thought was possible in manpower and money. I would eliminate all unnecessary noncombat planes that are not essential, either to the combat effectiveness of the Air Force or the necessary and essential support of training facilities.

I would eliminate duplication of command and duplication of other structures. I would make every saving possible in the Air Force and in the other departments. Having done that, then I think that we should have the money appropriated which would provide the combat effectiveness of the Air Force without impairment. I do not think, at this time, it would reduce the combat effectiveness of the Air Force. Whether the money appropriated will do it or not I do not know. There is a difference of opinion. I understand that the Secretary of the Air Force is to testify tomorrow on it. Certainly without having studied it I cannot comment. But one thing is certain, I think that we must not—I cannot see anything in the times that would warrant a reduction one iota, one bit, in the combat effectiveness of the Air Force. But I would insist on all the economies.

Senator SYMINGTON. You were on the record once, I think, that if you had a real programing and planning program instead of this constant reprograming and planning that you could get equal defense for a third less money. Is that not correct? Roughly something like that?

Mr. McCONE. Yes, sir.

Senator SYMINGTON. You mentioned the Secretary of Air Force testifying tomorrow. I noticed a story this morning that there was a disagreement between the comptroller in the Department of Defense and the Secretary of the Air Force. Does that touch you with a little nostalgia as far as the past is concerned? Does that follow any pattern?

Mr. McCONE. Could I go off the record?

Senator SYMINGTON. Yes.

(Discussion off the record.)

Senator DUFF. Another conspicuous conclusion that has to be drawn is that instead of fits and starts it is absolutely imperative, if we are going to have a proper defense, that there must be this long-range planning.

Mr. McCONE. There must be, there cannot be anything else.

Senator DUFF. It cannot possibly be done any other way, can it?

Mr. McCONE. It cannot possibly be done any other way that I know of. It must be done intelligently and carefully and with an

eye to doing it as economically as possible. We must recognize the need to save money, particularly in this very expensive arm of the defense establishment, but not at the cost of combat effectiveness. I want to differentiate very clearly between economies and cuts in strength. The first I am for, the second I am opposed to.

Senator DUFF. I think that is a distinction that is pretty generally recognized.

Mr. McCONE. I wish I could be of more help on this. I have not been studying the current figures and I really do not know about them.

Senator DUFF. Any other questions?

Senator SYMINGTON. No, Mr. Chairman.

Senator DUFF. That is all I wanted to ask you, sir.

Mr. McCONE. Thank you very much, Mr. Chairman.

Senator DUFF. The staff would like me to ask you these questions, beginning with No. 43, for the record, which I will read seriatim and you can answer them.

Did Fairchild Corp. make any protest to you concerning the award of the C-119 contract to Kaiser-Frazer?

Mr. McCONE. Yes. Either late in December or the first day or two in January.

Senator DUFF. What was the basis of their protest?

Mr. McCONE. Their protest was that this had been a precipitous action and that careful consideration had not been given to it, and that they had made a mobilization study of performing this work elsewhere, and furthermore that it involved really taking away from them and turning over to others a know-how that was a fundamental part of their business.

We discussed the need for them to enter into a technical assistance contract with the Kaiser-Frazer Co., and some discussion arose in my discussions over that matter. A day or two later Mr. Boutelle met with General Vandenberg and Secretary Finletter and myself and we made assurances to him that what we were doing was creating a second source, that if and when requirements were reduced and a second source was no longer required, then his basic business would be protected.

We went so far as to say that if we were not in office we would still use our influence to see that that commitment was lived up to. We had Mr. Edgar Kaiser come down the next day or a day later and we told him what our position was. That apparently satisfied the Fairchild people because they wrote me following that meeting and expressed satisfaction and immediately thereafter they created an organization to render this technical assistance, and so far as I know it has gone along all right ever since.

But there was a protest.

Senator DUFF. Would you make a statement as to the reason that you subsequently made a decision to phase out the production of the C-119 at Willow Run?

Mr. McCONE. In May the Kaiser-Frazer Co. acquired a 49 percent interest and management control of the Chase Aircraft Co. Chase Aircraft people had designed a successful assault transport which was a competitive article to the C-119.

The Army, who are the ultimate user of this plane, had made the decision somewhat against the will of the Air Force, that their mission could be better accomplished by the use of the C-123 for certain as-

sault operations, rather than using the C-119. Therefore, it was necessary to furnish both planes. I took that matter up personally with General Collins and General Hull and they in turn took it up with General Mark Clark because the production of the C-123 created a great many problems for us, and a particular embarrassment because it put the Kaiser-Frazer Co. where they had a grip on two competitive articles, and it also violated the spirit of the understanding with Mr. Boutelle and Mr. Kaiser that I just spoke of.

We solved the problem after long conferences. I could go into the detail of it, but will merely state we made the decision to phase the Willow Run out of the C-119 and let them proceed with the C-123 and to depend upon Fairchild for the entire requirement of the C-119.

Since Hagerstown did not have the capacity, we decided to then activate the Chicago plant, which had been a source of some discussion.

Senator DUFF. We have a call to go to the Senate on a vote, and I am afraid we will have to go. Was it your idea to be here again tomorrow, sir?

Mr. McCONE. That is what the chairman asked.

Senator DUFF. We will return shortly.

(Thereupon, a short recess was taken.)

Senator DUFF. I will ask you these staff questions.

Mr. McCONE. Could I ask if the reporter would read the last part of my statement?

Senator DUFF. Yes.

(The statement was read.)

Senator DUFF. The next question: How did you propose at this time to meet the mobilization potential requirements which you have previously outlined to this committee as existing in December 1950?

Mr. McCONE. The production of Hagerstown and the Willow Run together, to my memory, met the mobilization requirements of this airplane.

Senator DUFF. The next question: Is it to be inferred that the urgency of reaching a mobilization potential, which was the compelling reason for the awarding of the C-119 contract in December 1950, was being ignored in June 1951?

Mr. McCONE. No, I do not think that could be inferred because the situation changed materially by the bringing in of two aircraft, the C-119 and the C-123. In effect what you had was the production potential of three plants: Hagerstown; Park Ridge, Chicago; and Willow Run.

So there was no reduction in the mobilization potential.

Senator SYMINGTON. Mr. Chairman, may I ask a question?

Senator DUFF. Certainly.

Senator SYMINGTON. Did the Air Force propose to Kaiser-Frazer that they buy the stock in the Chase Co.

Mr. McCONE. No, sir.

Senator SYMINGTON. Did they disapprove it?

Mr. McCONE. They did not feel that it was within their province to tell Kaiser-Frazer what he should do with his money.

Senator SYMINGTON. Mr. McCONE, what do you think was the reason that the Kaiser-Frazer people bought the Chase stock? I am only asking as a matter of interest. I cannot remember.

Mr. McCONE. I do not know that I can answer that, Senator Symington. I do not know why they bought it, except that I think



that they had a strong desire to be in the aircraft business. They felt, as a second source for the Fairchild C-119, they were temporarily in the business but not permanently in the business.

I think they gambled that by acquiring the Chase stock it would put them in a position as a basic supplier. I did not feel in a position to comment on it although I did not say that I thought, when I was told of the decision—and that was at a time when the statement was made that the Chase Co. was obligated to sell but the Kaiser Co. was not obligated to buy during the option period there when I was told about it—when I was told about it I said that I felt it was a distinct violation of the commitments made to Secretary Finletter, General Vandenberg and me.

Senator SYMINGTON. On the part of Kaiser-Frazer?

Mr. McCONE. On the part of Kaiser-Frazer.

Senator SYMINGTON. By their becoming interested in what I understand is a fine airplane, the C-123?

Mr. McCONE. Yes, sir, but becoming interested in an article that was a direct competitor of the aircraft which the Fairchild Co. were teaching them how to build.

Senator SYMINGTON. Incidentally, have you ever heard any criticism of the Fairchild Co. from the standpoint of it not helping the other companies build the plane?

Mr. McCONE. No, I have never heard any criticism which I felt was authoritative.

Senator SYMINGTON. Did you ever get any formal protests from the Kaiser-Frazer people about it?

Mr. McCONE. I did not. I do not know of any, either.

Senator SYMINGTON. I would like to pursue this, Mr. Chairman.

Senator DUFF. Go ahead.

Senator SYMINGTON. The Fairchild Co. lost quite a little volume due to the decision. I want to say that I think you have made, to me, a very effective and intelligent analysis and presentation of the reasons why you felt that was advisable. But then there was, as I remember it, some disagreement with respect to the merit of the C-123 and the C-119—that is correct, isn't it?—between the Army and the Air Force, as to which plane would be the better plane to put into production?

Mr. McCONE. There was no disagreement as regards the relative merits of the plane. I think that the evaluation team of the Air Force and the evaluation team of the Army, or the representatives of the Army that were on the evaluation team, were in agreement that for the mission that Chase aircraft seemed to perform better. But as, you know, the decision of an evaluation team does not constitute a decision to buy an airplane.

The Air Force felt that the differences were so little and there were so many problems involved in bringing a new airplane into the program that they felt that the C-119 could be modified so that it would perform in the mission just as well as the C-123, and all of the problems of manufacturing another airplane and "de-bugging" it and then supporting it logistically could be eliminated. That was the Air Force's position.

Senator SYMINGTON. One more question, Mr. Chairman. The Fairchild Co. had a fine record of production. First, they were asked to split their production because of their lack of capacity, which I

fully understand. Then as I get it you were trying very hard to be fair with the Fairchild Co. So you felt that if in addition to getting all the know-how, in effect free, they could add it to the cost from the Fairchild Co. with respect to the C-119, if the Kaiser-Frazer Co. then went out and bought a major interest in the C-123 that that would make it possible for them not only to obtain free the know-how from the Fairchild people but also they might plug the C-123 to the point where they eliminate all the production at Fairchild.

Is that a fair inference?

Mr. McCONE. That is the way we appraised it, and it was for that reason that we decided at some cost and some inconvenience to undo this arrangement and to depend on Fairchild exclusively for the C-119s and to get Kaiser out of the C-119 business just as quickly as possible.

Senator DUFF. That is the reason you decided to reactivate the Chicago plant which before you had decided not to reactivate?

Mr. McCONE. That is right. We felt that Willow Run was no longer a source for C-119's but we still had need for two plants on the C-119's although the need was less than it was before. Consequently we were satisfied with the Chicago plant.

Senator DUFF. Was it ever indicated by the so-called higher authority in Government that they were anxious for Kaiser-Frazer to have an airplane contract?

Mr. McCONE. No. No. I would like to be clear on that. There was at no time any indication made to me or to my knowledge to anyone else in the Air Force, concerning a desire to have Kaiser-Frazer have an airplane contract.

Senator DUFF. As far as I know that is the end. Senator, do you have anything further?

Senator SYMINGTON. No; Mr. Chairman, I do not.

Senator DUFF. We will reconvene at 10 o'clock tomorrow morning. The committee is now adjourned.

(Whereupon, at 3:29 p. m. the committee was adjourned, to reconvene at 10 a. m., June 3, 1953.)

## AIRCRAFT PROCUREMENT

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JUNE 3, 1953

UNITED STATES SENATE,  
PREPAREDNESS SUBCOMMITTEE No.1,  
ARMED SERVICES COMMITTEE,  
*Washington, D. C.*

The subcommittee met, pursuant to adjournment, at 10 a. m., in room 212, Senate Office Building, Washington, D.-C., Senator Styles Bridges (chairman) presiding.

Present: Senators Bridges, Flanders, and Duff.

Also present: Fred Rhodes, chief counsel; James Anton, special counsel, and Harold M. Devlin, accountant.

The CHAIRMAN. The subcommittee will come to order. At the beginning of this session the Chairman would like to say that I am sorry that I was called away from the session yesterday by the press of another engagement at the White House and the Floor of the Senate. I want to thank Senators Flanders and Duff for carrying on for me in the chair.

Turning to the testimony of Mr. McCone, I would like to point out, in summary, some of the more important points which appear there. It had been known for some time that there would be increased demands for cargo-type aircraft in the fall of 1950. It was estimated that a substantial number would be required to fill the needs of the Air Force, the other services, and mutual defense requirements. The plane in question is the C-119 which was then being produced at the Fairchild plant at Hagerstown, Md. It was stated by Mr. McCone that the capacity of the Fairchild plant was 35 per month, but as a result of increased requirements additional sources were necessary.

At a luncheon meeting with Henry and Edgar Kaiser on December 5, 1950, Mr. McCone told the committee they expressed a desire to get into aircraft production. He said that Mr. Kaiser, who had just recently arranged for a loan of \$25 million from the RFC told him that his automobile business was suffering cutbacks. Mr. McCone knew that they had previously tried to get into jeep production at Willow Run.

At a meeting on December 15, 1950, it was decided to give the Kaisers a contract to build the C-119 plane, as a second source, at the Willow Run plant. Later a letter of intent was written under date of December 20, 1950. Thus in the span of 15 days a new producer is brought into the business of building airplanes, and is given the know-how by the Fairchild Aircraft Corp. at the direction of the Air Force.

It was interesting to note that the decision of the 15th of December was made in haste without the benefit of cost estimates. Mr. McCone told the committee that he did not feel this was unusual since there

was considerable pressure to get into production with the second source of the C-119. Mr. McCone also said, and significantly, on January 5, 1951, he had written a letter in which he warned his appropriate subordinates that they must watch the cost of all Air Force contracts with producers of automotive goods to insure that they did not load on to the Air Force costs which should have been charged to civilian business. In this connection he mentioned contracts with the General Motors Corp. and the Kaiser-Frazer Corp.

In response to a direct question of Senator Symington, Mr. McCone stated that he felt that there was the possibility that the Kaiser-Frazer Corp. might try to have the Air Force absorb some of the losses of their automobile business.

Senator Flanders made the observation to Mr. McCone, "Why did you think Kaiser-Frazer would be a satisfactory contractor when you so clearly expressed the necessity for watching them?"

It can be assumed that the Air Force set up a system to check on these costs. We are interested to find out what the Air Force did in this regard, and we certainly are interested to learn why a second source should overrun a prime source by a factor of 5 to 1 in cost.

Mr. McCone said that he was disappointed that the performance of the contract by Kaiser-Frazer was unsatisfactory. Senator Symington pointed out that he was opposed at that time to the Kaisers entering the aircraft industry and so told Henry Kaiser. It was also observed here yesterday that the costs of the contract were excessive and Mr. McCone agreed.

In reference to the award of a C-123 contract to Chase Aircraft in June of 1951, Mr. McCone made the observation that when he learned of the purchase of a substantial part of Chase Aircraft stock by Henry Kaiser, he felt this was a distinct violation of the commitments made to Secretary T. K. Finletter, Gen. Hoyt Vandenberg and to himself by the Kaisers.

Considerable mention was made of the tempo of the times. Of course this committee has been aware of the menace of the Soviet Union for at least several years prior to the time in question. I point out the so-called Unification Act was stimulated by the growing threat of international communism.

The witness of yesterday pointed out that despite this threat our preparedness was continually hampered by what he described as reprogramming. This is a procedure whereby one program is cut back to utilize funds for another program which may have a higher priority. The point should be made clear here that the exorbitant costs at Kaiser-Frazer were not the result of any reprogramming and Mr. McCone did not undertake in any sense to say otherwise. His statement on reprogramming referred to the general problem of general comprehensive planning in the Air Force and not to any one particular contract.

I think this committee is unanimous in its feeling that the Congress has been thoroughly acquainted with the peril this country has been in for a number of years. The Congress has been responsive to the requests for money, and particularly is this true in the case of the Air Force since all of us realize that our air potential is a first line of defense or offense.

Despite this, we are told that the previous administration took action to curtail the Air Force, and that it was this curtailing action

which has kept us from growing to the size and strength the people of this Nation have a right to expect. I am speaking of the past.

I was glad to hear that Mr. McCone stated that cuts could be made in our Air Force budget without hampering our air strength. He also said that the inefficient producers had to be eliminated from the procurement program. With that, of course, the committee is in agreement.

Mr. McCone, who was the witness yesterday, would like to clarify some statement that he made. Mr. McCone, we will be glad to hear you.

**TESTIMONY OF JOHN A. McCONE, FORMER UNDER SECRETARY  
OF THE AIR FORCE—Resumed**

Mr. McCONE. Thank you, Mr. Chairman. I tried to be eminently fair in my remarks and I think, however, that I was perhaps too strong in a statement that appears on page 49 of the transcript of my testimony, in which I said:

When I was told about it—

and this is referring to the Kaiser-Frazer acquisition of the stock in the Chase Co.—

I said I felt it was a distinct violation of the commitments made to Secretary Finletter, General Vandenberg, and me.

I would like to amend that by saying that I thought that it was inconsistent with the spirit of the arrangements made with Secretary Finletter, General Vandenberg, and me. I do not like to have the record appear that the Kaiser Co. violated a commitment which might in effect be a violation of a contract or a moral obligation.

Previously, in commenting on the same subject, I stated that this transaction "caused particular embarrassment because it put the Kaiser-Frazer Co. where they had a grip on two competitive articles and it also violated the spirit of the understanding of Mr. Boutelle and Mr. Kaiser" that I just spoke of.

I think that is a more temperate and proper wording and I would like to substitute it if I may.

The CHAIRMAN. Certainly.

Mr. McCONE. There is one other point I would like to elaborate on.

On page 127, in response to a question by Senator Symington, as to whether I had heard of any criticism of the Fairchild Co. from the standpoint of not helping the other companies build the plane, I answered, "No, I have never heard of any criticism which I felt was authoritative."

In expanding on that, I had been told by representatives of the Kaiser-Frazer Co. that there was some dragging of the feet on the part of Fairchild in rendering technical assistance to Kaiser-Frazer. I have not received from our Air Force representatives at the plant or from the Air Materiel Command, or the staff, any statement to the effect that Fairchild had in any way failed to fulfill the spirit and letter of their contract with the Air Force to render technical assistance to the Kaiser-Frazer Co.

That is why I worded my answer by saying that I had not received criticism which I felt was authoritative. The only criticism that my office would accept would be that which came through command and

staff channels. We would not accept as authoritative a statement of any contractor.

Mr. ANTON. Mr. McCone, who made the statements to you in reference to what you just explained? Who were the Kaiser-Frazer personnel who made the statement to you that things were not going all right at the Fairchild plant?

Mr. McCONE. Mr. Edgar Kaiser, president of the Kaiser-Frazer Co.

Mr. ANTON. You were talking about a commitment, and now you changed it to an arrangement. Could you explain to the committee just what those arrangements were?

Mr. McCONE. Yes. Mr. Boutelle, representing the Fairchild Co., at the request of Secretary Finletter, met with the Secretary and the Chief of Staff and me to discuss the technical-assistance contract between Fairchild and Kaiser-Frazer which the Air Force were anxious for Fairchild to engage in.

In that he protested this entire arrangement because he felt that the end point would be the absorption of the Fairchild airplane manufacturing activities by this company which he looked upon as a larger and more powerful company.

We assured Mr. Boutelle that we were bringing Kaiser-Frazer in as a second source; that Kaiser-Frazer would manufacture the Fairchild airplane; and that when conditions developed so that we could retire to a single source, then we would preserve Fairchild in the picture and it would be Kaiser-Frazer that would be removed.

We went further to say that we could make that commitment while we were in office but we could give him assurance that we would use such influence as we had at a later time, should we not be in office, to see that the commitment was carried out.

That satisfied Mr. Boutelle. The following day we met with Mr. Kaiser and reviewed exactly the same subject. We told him that we wanted it distinctly understood that the Kaiser-Frazer Co. was being brought in as a second source in the manufacture of the Fairchild airplane. It was not to be advertised as a Kaiser airplane, it was not to be labeled as a Kaiser-Frazer airplane, it was a Fairchild airplane; that he was receiving valuable technical know-how and help from the Fairchild Co. and that we wanted him to respect the fact that he was being given that assistance, and furthermore that when the time came that the two sources were no longer needed or could be operated with reasonable economy at both, that it would be Air Force policy to remove the Kaiser-Frazer Co. and throw the entire production into the Fairchild Co.

Mr. ANTON. You mentioned the fact that this was a meeting between Secretary Finletter, General Vandenberg, yourself, and Mr. Boutelle. Had you had any prior meetings with Mr. Boutelle?

Mr. McCONE. Yes, I had.

Mr. ANTON. Would you tell the committee about those meetings and the first time that Mr. Boutelle approached you?

Mr. McCONE. Mr. Boutelle approached me a few days prior and protested this entire transaction, as I stated yesterday, and at the same time said that he did not think it was fair to ask—I am not trying to quote him, I am trying to give my recollection of the meeting that took place over 2 years ago—to ask the Fairchild Co. to render technical assistance.

He furthermore stated that he intended to protest this transaction. The meeting became very heated. I would be less than frank with you if I did not tell you that. It was because of the unsatisfactory conclusion of that meeting that this second meeting was held at which time the problems that were worrying the Fairchild Co. were thoroughly aired and the commitments made on our part which I have just outlined.

Following that Mr. Boutelle wrote me a letter in which he said that the understandings were thoroughly satisfactory, that the Fairchild Co. would proceed with the technical assistance contract, and they did so. They furthermore employed a Mr. Frizzell, I believe his name is, as a vice president and assigned him a staff to handle the problem of carrying out this technical assistance contract with Kaiser-Frazer.

Mr. ANTON. Prior to the letter that was sent to you by Mr. Boutelle, is it not true that following the first meeting he had with you he sent you a telegram? Do you have a copy of that telegram? Would you please read it?

Mr. McCONE. I am reading it from a reprint of it in your statement of our conference on this subject. I do not have the original telegram but I imagine this is the correct copy. This is to John McCone, Under Secretary of the Air Force:

In the interests of the successful defense effort my directors and I have decided to take whatever steps we can to appeal your decision today delivered to me in such a threatening manner. Therefore, it would seem improper for me to meet with you tomorrow. Despite our objections, but in order to cause no delay in the mass-production program, you have my assurance nothing will be allowed to interfere with the cooperation we were requested to give and consented to give Mr. Kaiser. These orders have been carried out under my instructions to the letter. We will continue to cooperate with Mr. Kaiser and his people as long as they are in the program. I will, of course, meet with Mr. Kaiser tomorrow as originally planned.

It is signed R. S. Boutelle, president of Fairchild.

Mr. ANTON. You answered that?

Mr. McCONE. Yes, I answered that in this way:

This will acknowledge your telegram of January 3, which I appreciate. A copy of the telegram is being transmitted to Secretary Finletter, General Vandenberg, and also Generals Chidlaw, Cook, and Wolfe. I regret you feel it would be improper to meet with me today as agreed. Since you or your directors obviously doubt the wisdom of the decision of the Air Materiel Command and the staff and this office in connection with the program for the production of C-119, I believe it proper that you make any appeal that you feel appropriate. I shall be happy to meet with you to discuss this matter or any other matter of mutual interest at any time you desire to drop into the office.

JOHN McCONE.

Mr. ANTON. You indicated yesterday that there was an extreme urgency in December 1950 for the procurement of C-119 cargo planes. Seven months later, however, the program was phased out, and I was just wondering if that extreme urgency had suddenly vanished or if it still existed.

Isn't it true that the potential mobilization still existed for that plane?

Mr. McCONE. Yes, that is correct. The plane was not phased out.

Mr. ANTON. You explained also that the C-123 was going to take its place. Is that the understanding?

Mr. McCONE. No. In the first place the C-119 was not phased out but there was a reduction in the total requirement for assault

transports. That was the first thing that took place between December 31, 1950, the date of the A-13 schedule, and sometime in May or June of 1951 when the next agreed schedule was adopted.

The reason for that reduction was one of the reprogramming that revolved largely through the elimination of war reserves. War reserves had been included in the early schedules. By "war reserves" I mean a stockpile of finished articles of sufficient size, sufficient quantity, rather, to take care of the estimated attrition losses in the early days of the war before production can be stepped up to replace the losses.

That matter of the accumulation of war reserves was considered in the spring of 1951 by a committee set up by Secretary Lovett consisting of then Under Secretary of the Navy Kimball and Assistant Secretary of the Army Vendetsen, and me as the Under Secretary of the Air Force. We set out some so-called ground rules for planning purposes and programing purposes, guidelines for the services, and one of the things that we did was to cut down war reserves, feeling that we could depend more on the production potential rather than this sterile business of accumulating planes and putting them in mothballs around the country. That accounted for a substantial part of the reduction in the requirement of assault transports.

Also between December 1950 and June 1951 we finally decided that the C-119 was not an acceptable article for the assault transport mission of the Army, and that in effect split the C-119 requirements into two 119's for certain missions and 123's for other missions.

So you had two things occur: You had a reduction in the total quantity for various reasons, of which I have mentioned only one, and I do not mention the others because I would have to refer to the planning papers to do so, and the fact that the requirement was divided between two articles.

Mr. ANTON. In your opening statement yesterday you gave as one of the reasons why the Chicago facility was not considered as adequate for production that the building had deteriorated. Seven months later, in June 1951, a decision was made to activate Chicago and put Fairchild in as a producer. Would you please explain how that decision in June can be reconciled with your statement made in your opening statement yesterday?

Mr. McCONE. Yes. It was the only available plant and the deterioration we had to face up to, doing such maintenance work and repair work as was necessary. Actually there was a substantial amount of money programed to be spent in the refurbishing of the Chicago plant. I think that the Air Force could supply this committee with first the money that was actually spent, and secondly that which was anticipated. And it was quite substantial.

Mr. ANTON. Is it not true that management is a consideration that the Air Force looks into when it is deciding to award a contract?

Mr. McCONE. Yes.

Mr. ANTON. The subcommittee had prepared for it by the Air Force sometime ago a manual on procurement practices and procedures. Some of the things that have to be done when procuring, on page 57 of this manual, are as follows:

Are the present facilities of the firm satisfactory to perform the contract being considered for award? Is the present financial stability of the firm sufficient to perform the contract being considered for award?



I would like to know if these were taken into consideration in this contract award in 1950? And if they were, was a record made of these and could we have a record of them?

Mr. McCONE. I could go into that. I cannot answer that question offhand. I am not familiar with that particular directive. But I am sure that representatives of the Air Materiel Command and the staff, which the chairman has indicated he is going to call, can answer that question much more accurately than I.

The CHAIRMAN. Senator Duff?

Senator DUFF. No questions.

The CHAIRMAN. Thank you, Mr. McCONE.

Mr. McCONE. Thank you, Mr. Chairman.

The CHAIRMAN. We will call next to the stand Gen. Orval R. Cook.

Will you raise your right hand and solemnly swear that the testimony you are about to give will be the truth, the whole truth, and nothing but the truth, so help you God?

General COOK. I do.

#### TESTIMONY OF GEN. ORVAL R. COOK

The CHAIRMAN. Your full name is what?

General COOK. Orval R. Cook.

The CHAIRMAN. And your rank is what?

General COOK. I am a lieutenant general, United States Air Force.

The CHAIRMAN. Your assignment is what?

General COOK. I am presently Deputy Chief of Staff, Materiel, United States Air Force.

The CHAIRMAN. And your headquarters is here in Washington?

General COOK. My place of duty is Headquarters, United States Air Force, Washington, D. C.

The CHAIRMAN. General Cook, do you know of a facility study in the fall of 1950 of Willow Run conducted by the Air Force to determine its capability for the production of the C-119 plane, and what were the conclusions?

General COOK. I do not recall the details of that. That was one of many studies that were being made at that time for production of various aircraft. I do recall that a study was made.

As I said before, I do not recall the details of the study.

The CHAIRMAN. Would a copy of that be available?

General COOK. I do not know whether a copy is available.

The CHAIRMAN. Would you make an effort to see if you can locate that and furnish it to the committee?

General COOK. Yes, sir.

(The statement referred to is as follows:)

You have requested a copy of any facilities study made of Willow Run in December 1950 for C-119 production. No such study was made because the capacity and layout of the plant were completely known to Air Force procurement and facilities personnel. The plant had, of course, been used for aircraft production in World War II and had been under study for some time for mobilization production of the B-47.

The CHAIRMAN. Do you recall any discussions or conferences that you may have had with the Air Force personnel regarding the production of the C-119 airplanes prior to December 5, 1950?

General COOK. No; I do not recall any.

The CHAIRMAN. Between December 5, 1950, and December 15, 1950, did you institute any studies or investigations regarding the utilization of the Willow Run plant? If so will you comment on these reports?

General Cook. I do not recall instituting any investigations regarding the use of the Willow Run plant between—for the C-119 production—between the 5th of December 1950 and the 15th of December 1950, although it may have been done because, as I have stated before, there were many such projects under way at that time.

The CHAIRMAN. Did you propose any changes in the C-119 production program during the first 2 weeks of December 1950 whereby Willow Run was substituted for a plant to utilize another plant for Fairchild?

General Cook. I do not recall having done so, sir.

The CHAIRMAN. On November 10, 1950, mobilization plan MA-5 called for production of the C-119 by Fairchild as a second source at Omaha, to reach a peak of 185 planes a month.

On December 12, 1950, this plan was revised to substitute Kaiser-Frazer at Willow Run as a second source for C-119's.

Will you tell the committee why that revision was made?

General Cook. During the consideration of Omaha—the Omaha plant, the Government-owned plant at Omaha—for production of aircraft, we were continually faced by the fact that part of the plant and practically all of the administrative space available there was occupied by Headquarters, Strategic Air Command.

That difficult problem was resolved and it was finally resolved by a decision not to move the headquarters of the Strategic Air Command at that time.

One of the considerations, I believe—I am not definite on the dates that you mentioned—one of the considerations, as I recall the facts at that time, that probably led to the selection of Willow Run was that Willow Run was one of the finest aircraft plants in the United States as a plant.

It had been built for the production of aircraft. It had been purchased by Kaiser and, as I recall the agreements that were made with different contractors who had purchased war-time plants with a security clause in the deed, it was that the management of those plants would have the right of refusal for any production which would be scheduled for those plants.

The CHAIRMAN. What factors were taken into consideration when a contractor was selected and a contract awarded? And would you give them in the order of their importance?

General Cook. Certain circumstances at the time sometimes change the importance of the factors that I am about to enumerate.

I would like to say that at the time that this matter was being considered, there was a great deal of urgency for the Air Force to get orders placed for the aircraft that it was to buy, and to get production rolling.

As Director of Procurement and Industrial Planning of the Air Materiel Command at the time this was considered, I was very, very conscious of the need to expedite production as rapidly as possible.

I was also cognizant of the fact that proposals were being made in the early part of September for the President to declare a state of national emergency.

That was one of the things that made it apparent to us out there that we should not lose any unnecessary time.

The answer to your question, provided an adequate management is available, one of the first things that we considered at that time was the availability of adequate facilities to manufacture the product that we needed.

The CHAIRMAN. You say considering adequate management. Where does management come in? Management certainly is a factor.

General COOK. It is a very important factor, Mr. Chairman.

The CHAIRMAN. Where would you put management?

You put facilities first, do you?

General COOK. As I said before, that is a very difficult question to answer because of the circumstances that exist at the time.

In some cases I would put management first. In other cases I would put facilities first and then depend upon our ability to get the management properly organized to get the thing on its feet later on, depending on the urgency of the situation.

The CHAIRMAN. In this case you put facilities first, is that right?

General COOK. I do not recall whether facilities were placed first in this. But facilities certainly had an extremely important bearing on this decision.

The CHAIRMAN. You speak of management. What experience—successful experience—did Kaiser-Frazer have in airplane production?

General COOK. Kaiser-Frazer during part of World War II—I do not know whether everyone would agree that it was successful—Kaiser-Frazer during World War II—Kaiser did—operate the Brewster Co. over at Jonesville, Pa.

The CHAIRMAN. What happened to the Brewster Co. after they operated it?

General COOK. I am not familiar with that.

The CHAIRMAN. Do you not think you should have been? Is it not a fact that the Brewster Co. went broke after the Kaisers operated it?

Wouldn't that be a first consideration and that you, as head of the Air Materiel Command, should say, "If Kaiser-Frazer's only experience was operating a plant that went broke after they operated it, certainly that is a factor that should be taken into consideration."

General COOK. It certainly should be considered, yes, sir.

The CHAIRMAN. Then the only experience they had was operating Brewster?

General COOK. No, sir.

The CHAIRMAN. What other experience did they have?

General COOK. They operated another organization called Fleetwing, at Bristol, Pa.

The CHAIRMAN. Was Fleetwings one of their own companies, or did they operate it for another corporation?

General COOK. As I recall it, they purchased the thing outright and operated it as one of their own companies.

The CHAIRMAN. What kind of planes did they manufacture there?

General COOK. They did not manufacture aircraft. They manufactured aircraft parts, as I recall it.

The CHAIRMAN. What kind of parts?

General COOK. Parts for B-17's, which, as I recall most vividly, were one of our leading combat aircraft in World War II.

The CHAIRMAN. How much of a part did they manufacture?

General COOK. The part of the control surfaces of the B-17 were manufactured there, among parts of other aircraft. I do not recall all of those but I can get them for the record if you desire.

The CHAIRMAN. I would like to get that.

(The statement referred to is as follows:)

You asked concerning aircraft parts produced by Fleetwings at Bristol, Pa., in World War II. As this work was basically subcontract work for various prime contractors, both for the Army Air Corps and the Navy, the Air Force has no method of determining the exact nature or volume of this business. Kaiser-Frazer Corp. stated to the Air Force in December 1950:

"At the Kaiser-owned Fleetwings plant at Bristol, Pa., the Kaiser organization produced wing and control parts, surfaces, and small parts for Corsairs, Avengers Flying Fortresses, Havocs, Sea Wolves and Hughes F-11's. In addition, Fleetwings made hydraulic valves, fuel and oil tanks, half-pontons, pylons, helicopters and many other aircraft and assemblies which are still confidential. The dollar volume of the Fleetwings plant was \$73 million."

You have also asked concerning the present aircraft production by Fleetwings. The name of Fleetwings was changed in September 1949 to Kaiser Metal Products. This company now has subcontracts with Republic for the aft section of the F-84-F and with Glenn L. Martin Co. for B-57 wings.

The CHAIRMAN. What happened to Fleetwing? Is it in existence today?

General COOK. Yes, sir.

The CHAIRMAN. Who is running it today?

General COOK. As I recall, Kaiser.

The CHAIRMAN. What is it used for today?

General COOK. It is used for the production of aircraft parts today.

The CHAIRMAN. And it is a successful operation so far as you know?

General COOK. As far as I know, it is a successful operation, producing parts for combat aircraft.

The CHAIRMAN. Is there any other experience they had, directly or indirectly in producing planes? Fleetwing was just for plane parts and not the whole plane. Any others?

General COOK. I do not recall any at this time. I would have to research the records.

The CHAIRMAN. If you find any others, we would like to have them:

(The statement referred to is as follows:)

I know of no other Kaiser experience in producing aircraft prior to December 1950.

The CHAIRMAN. The committee has received a report that on December 15, 1950, you attended a meeting of the Air Materiel Command at which it was decided to award the C-119 production contract to Kaiser-Frazer as a second source. Will you inform the committee who was present at this meeting and what transpired?

General COOK. This is all from memory, Mr. Chairman. To the best of my memory, Mr. McCone, Under Secretary of the Air Force, Mr. Zuckert, then Assistant Secretary of the Air Force, General Wolfe, Deputy Chief of Staff, Materiel, some additional officers from headquarters, Air Force, I believe General Edwards, who was then Deputy Chief of Staff, Operations, was one of the people present, General Chidlaw, the commanding general of the Air Materiel Command, myself, and several additional officers whose place of duty was the Air Materiel Command at Dayton.

I do not recall all of their names.

The CHAIRMAN. Concerning this meeting, would you inform the committee what recommendations you made concerning the production of C-119's at Willow Run?

General COOK. As I recall the occurrences at that meeting, I had initially been in favor of producing the C-119, that is using as a second source for the C-119 either the Omaha facility or the Chicago facility, to be operated by the Fairchild Aircraft Corp.

At that meeting many things were discussed, many factors bearing on this problem were discussed.

There were many other production problems of aircraft and engines discussed at the same meeting, but one of the factors, as I recall it, was that the Chicago plant would require the displacement of some tenants that were in the plant, that would require considerable rehabilitation.

These tenants could not be removed quickly because one of the tenants, as I recall it, was the ATC, or CAA Communications Control Center, which could not be removed very rapidly.

The other one was doubtful as to whether or not the plant could support all of the additional production required for the C-119.

I am a little vague on that one but I believe that was one of the considerations.

The CHAIRMAN. You personally did not recommend Kaiser-Frazer or Willow Run? You were for Chicago or another plant?

General COOK. I cannot say that I personally did not finally recommend that after all these considerations had been brought into the problem.

The CHAIRMAN. But you went to the meeting for Chicago or some other plant?

General COOK. When I went to the meeting, I went to the meeting as I recall it initially for Chicago or some other plant.

The CHAIRMAN. You must have had very good reasons for that.

General COOK. Yes, sir; I believe I did have good reasons.

The CHAIRMAN. What would it have cost to rehabilitate this Chicago plant which at the time was considered too impossible to select, yet 7 months later was selected?

General COOK. I do not recall that figure but I will procure it and furnish it for the record.

The CHAIRMAN. I would like to have that.

(The statement referred to is as follows:)

There have been several estimates of the expenditure necessary to rehabilitate the Chicago-Park Ridge facility for C-119 production. A study by Fairchild dated June 8, 1951, listed the plant activation cost at \$3,164,103. The estimate later submitted by Fairchild for renovating the plant in connection with the latter facilities contract awarded to Fairchild on August 1, 1951, amounted to \$1,380,849, which was subsequently increased on an Air Force survey to \$2,078,000. These costs are exclusive of machinery, equipment, tooling and other such items necessary to place the plant into production.

The CHAIRMAN. What occurred between the time it was rejected as not fit to produce planes, or not being desirable, and a few months later it was desirable?

What occurred?

General COOK. As I recall the circumstances, that was the only thing we had left at the time except Omaha, and we still had the problem of Strategic Air Command Headquarters at Omaha.

The CHAIRMAN. Mr. Anton?

Mr. ANTON. Could you estimate what it would cost to rehabilitate the Chicago plant?

General COOK. No, I cannot estimate that, Mr. Anton. The plant was built during the war. I am very familiar with it. The plant was built during World War II. It had a wooden roof, wooden truss construction and it was built of unseasoned or improperly seasoned timber at the time it was put up. It has been a constant maintenance problem.

What the cost of rehabilitating would be, I am not prepared to estimate.

Mr. ANTON. Would you say it would be less than \$5 million?

General COOK. No, sir; I am not prepared to estimate the amount.

The CHAIRMAN. At the meeting did you have Kaiser-Frazer's proposal?

General COOK. At the meeting of the 15th of December?

The CHAIRMAN. Yes.

General COOK. To the best of my knowledge I did not have.

The CHAIRMAN. Did you have their cost estimates?

General COOK. I did not have.

The CHAIRMAN. Then you—I say not you, but the meeting—arranged this blindly?

General COOK. No, sir.

The CHAIRMAN. You had no proposals, no cost estimates, yet you went ahead and gave a tremendous contract.

General COOK. We knew that the Kaiser Co. had had some experience in manufacture of aircraft and aircraft parts. We knew that they had experience in manufacture.

We knew the plant. We were very familiar with the plant. We knew the floor space, we knew the kind of construction, and we knew what its wartime record was as a facility.

Under Ford operation we also knew what the costs of the C-119 were at Fairchild and we also knew that we could watch and control those.

The CHAIRMAN. General, you are getting in pretty deep, are you not, if you knew what the costs were at Fairchild and we are going to develop at this hearing what the costs were at Willow Run? You testify now that you could control them.

I do not want you to get in any deeper than you want to get in.

General COOK. I am talking of what we thought at the time, what we considered we could do at the plant under the urgent circumstances of the times.

The CHAIRMAN. Is it the practice for you, General, or for the Air Force, to award contracts, major contracts, without having cost estimates, without having any definite proposals?

General COOK. Not ordinarily, but during that particular time, between June 25, 1950, and early in 1951 to the best of my recollection there were several contracts or agreements, commitments, that were entered into without full information as to cost.

The CHAIRMAN. This was entered into without any, was it not?

General COOK. No, sir.

The CHAIRMAN. Why? You had no proposals, you had no cost estimates?

General COOK. We knew the plant, we knew the aircraft that was to be produced there. So we had information, but it was not, as I

recall it, from Kaiser—it was our own information that we had accumulated at Headquarters, Air Materiel Command.

The CHAIRMAN. Members of the staff of this committee reported to us that in a discussion with you concerning the procurement of planes you stated that first you find out if you get the planes, then you determine the cost. That is an interesting statement. What do you mean by that statement?

General Cook. In times of emergency we have got to be sure that we can get the aircraft first and then of course an extremely important consideration is the cost.

But we are certainly interested in first getting the aircraft. We cannot, I do not believe, subordinate the necessity for ammunition or aircraft, munitions of war, when we are in an extremely urgent period of danger, completely to cost.

The CHAIRMAN. General, you state that you knew what the cost should be. What should they have been? We know what they were, but what should they have been?

General Cook. With regard to costs, sir, the distinguished chairman mentioned some costs here yesterday which I understood to be offered as comparable costs.

I do not believe that the facts will support those costs as comparable costs. So that with the chairman's permission, I would like to have entered into the record by one of our cost experts, Mr. Whipple, the basis for comparable costs between Fairchild and Kaiser-Frazer.

The CHAIRMAN. General, our intention is to call Mr. Whipple, as well as some others. We would like to complete your testimony first, and then we will call him.

General Cook. On this matter of comparable costs, I would like to defer to Mr. Whipple because he is very familiar with the details of the whole thing; and I am not.

The CHAIRMAN. For a moment we will not talk about comparisons. You say you know what they should have been. What should they have been, laying aside comparable costs?

General Cook. I would have to go back to the record of that time, sir.

The CHAIRMAN. Will you do that and furnish us that information?

General Cook. Yes, sir. Mr. Whipple has prepared that information.

(Statement referred to appears elsewhere in the record.)

The CHAIRMAN. On October 23, 1950, you wrote a letter as Chief of the Procurement and Industrial Planning in which you recommended that Fairchild be given a contract to open a facility in Chicago on December 1, 1950, as the most reasonable and economical way of meeting the requirements of the C-119 in the 95-wing program. Was this recommendation made in this letter based on a study of available facilities and analysis of their respective merits?

General Cook. I believe it was, sir, at that time. At that time the Willow Run facility was scheduled for production, or we had either started or planned to start on a study for production of the B-47 airplane at Willow Run.

The CHAIRMAN. My general information is that you considered a number of plants at that time, and you came up with Chicago as the best of all of them.

General Cook. A number of plants were considered at that time, but Chicago, sir, was not considered the best of all of them. I would say that at that time I recognized that Chicago probably was the worst plant of all from the standpoint of facilities, labor availability, and so on. But I considered at that time it was the best available plant for the production of the C-119. So far as the physical plant was concerned I considered it, I can assure you, the worst plant that we had.

The CHAIRMAN. Are you testifying here that you recommended the worst plant?

General Cook. No, sir. I recommended the best available plant, the best plant that was available for that production.

The CHAIRMAN. You do not mean that it was the worst available plant. It was the best available plant but it was a bad plant.

General Cook. I mean it was the best plant available for that particular work at that time but as a plant, both from the standpoint of its structure and from the standpoint of its location for labor availability, I did not think it was very good. Had I had another choice that would have been better from the standpoint of labor availability, and structure, I would have picked another.

The CHAIRMAN. Now we have the Air Force plant No. 8 at Chicago. You cite the advantages:

Plant size and layout lends itself readily to the plan C-119 production although the plant as a whole requires more rehabilitation than Tulsa, Omaha, or Marietta. Two, relocation of existent tenant activities would not be serious and it is considered that the relocation cost would be considerably less than would be the case at Tulsa, Omaha, or Marietta. Three, a fair labor market.

Now the disadvantages: "One, more vulnerable to air attack because of the industrialized location than other cities considered." That is a summary of it. You have not changed your mind on that, have you?

General Cook. I do not think I have. I did not read those details before I gave the testimony but I do not think I have changed my mind on that.

The CHAIRMAN. What was the compelling reason that caused you to change your mind and abandon the C-119 production by Fairchild in Chicago between October 23 and December 15?

General Cook. I do not recall any compelling reason, Mr. Chairman. There was a combination of factors. One reason, one factor that entered into it was the desire at that time to get work into automobile-producing areas where it was anticipated that there would be a sharp decline in employment in normal automobile production, and there was considerable, I will not call it pressure but there was considerable urging at the time on the military services to place production in areas where labor would be displaced by cutback in normal commercial production.

That was one factor, and I think a rather important one. Another factor was the desire—and as I recall it it was one of national policy at the time—to broaden the production base so that in going into Willow Run we were not only buying an airplane—and I would like to emphasize this—we were not only buying an airplane but we were buying insurance to produce additional aircraft in the event that the United States became embroiled in a third world war. And at that time it did not appear too improbable that the United States



would become embroiled in it because, as I say, I knew at the time that a declaration of a state of emergency was being prepared for the President and I was also informed, I do not believe officially, but I was informed that it was imminent.

We were under compulsion to look forward to the possibility of a third world war and being adequately prepared for going into it if it occurred. So that I would like to emphasize again and repeat that we were not only buying an airplane. Had we been faced with the necessity of buying just an airplane at the lowest price that we could procure it, we would not have done it that way.

The CHAIRMAN. You say you were buying insurance?

General Cook. Yes, sir.

The CHAIRMAN. It was pretty high-priced insurance, was it not?

General Cook. It all depends on the point of view, Mr. Chairman, whether it is high priced or not. I believe that had a war occurred at that time, or shortly afterwards, or within several months afterwards, that we would not have considered it high priced at all. It probably would have been very cheap insurance.

The CHAIRMAN. Members of our staff were advised that a wire recording was made at a meeting held at the Air Materiel Command in Dayton, Ohio, on December 15, 1950. They were also told that no transcript was ever made from this recording and that the recording cannot now be located. Can you inform the committee how it could happen that such an important record could be misplaced or can you produce this recording and record it for the committee?

General Cook. I cannot produce the recording or transcript of the meeting. To the best of my recollection the recording equipment failed to properly record, and it could not be transcribed for that reason. I might say that I have had other, similar experiences.

The CHAIRMAN. When the letter of intent contract was awarded to Kaiser-Frazer on December 20, 1950, for 134 C-119 airplanes, is it true that a fixed-price contract was contemplated?

General Cook. We contemplated a modified fixed price form of contract at that time and that modified fixed-price contract is one in which, after the contractor has performed a certain part of the work called for, a redetermination of the price is made by audit of his records and by assessment of his performance, and then from that point forward it becomes a fixed-price contract. As I recall the circumstances, particularly in view of the fact that we were apprehensive that all of the automotive companies and other companies which produced commercial articles ordinarily were being brought into this program and might possibly load some overhead—that could not be strictly allocated to aircraft production—on to our production contracts, we decided to make this a cost-plus-a-fixed-fee type of contract in order that we could watch the costs more closely.

The CHAIRMAN. What do you mean by "cost-plus-fixed-fee"? Just for the record.

General Cook. The contractor agrees to—we estimate what the cost of the end items should be, and an agreement is arrived at between the contractor and the Government as to what the estimated price will be on which to base a fee, and then a fixed fee is agreed upon to apply to those estimated costs. He may perform at a lower cost than the estimated cost, or he may perform at a higher cost than the estimated cost. But the fee is fixed and cannot be changed unless the

work to be performed under the contract is changed, and then the fee is changed. It is not a cost plus a percentage of the cost type of contract which is illegal.

The CHAIRMAN. General, what is a letter of intent contract? Will you explain that?

General Cook. A letter of intent was used and is occasionally used in order to enable the contractor to get started after it is decided that the work will be done by a certain contractor. It is to enable a contractor to get started on engineering, plant preparation, tool design, and matters of that kind while definitive estimates are being prepared for negotiation of the definitive contract.

The CHAIRMAN. General, here is a document entitled "Findings and Determinations" which was signed by you on February 27, 1951. Would you please verify this to be your findings and determinations with regard to the award of the C-119 contract to Kaiser-Frazer?

General Cook. This is mine.

The CHAIRMAN. When was the letter of intent contract amended to provide for a cost-plus-fixed-fee contract?

General Cook. The letter contract was amended, according to my records, on the 25th of January 1951.

The CHAIRMAN. Under what authority was the Kaiser-Frazer letter of intent amended on January 25, 1951, to provide for cost-plus-a-fixed-fee contract when your findings and determinations were not issued until February 27, 1951?

General Cook. It probably was done under my authority at that time to carry out Mr. McCone's admonition concerning the possible loading of costs. That is the only reason that I can give for that. At that time we were not able to make our paperwork keep up with our decisions.

The CHAIRMAN. In your findings and determinations to support a cost-plus-a-fixed-fee contract for producing the C-119 at Willow Run you indicate that the contract would cover 176 C-119's at an estimated cost of \$82,225,896. On what basis did you arrive at the estimate which is equivalent to \$467,000 per plane?

General Cook. As I recall it, that estimate was based upon Fairchild's costs.

The CHAIRMAN. In your findings and determinations to support a cost-plus-fixed-fee contract for producing the C-119's at Willow Run you also state the cost of performing this work cannot at this time be forecast with a reasonable degree of accuracy. How do you reconcile this statement with the estimated cost figure which you cite in the previous paragraph?

General Cook. As I previously stated, sir, that as I recall it was a budget figure based upon Fairchild costs. I might say that we anticipated that the Kaiser costs would be higher. This was a budget cost. We anticipated that the Kaiser costs would be higher for many reasons which Mr. Whipple will bring out in his detailed testimony to you later.

The CHAIRMAN. Is it not true that in September of 1951, 24 C-119's were added to the Kaiser-Frazer letter of intent contract at an estimated total cost of \$17,106,200, or equivalent to \$713,000 per plane?

General Cook. I do not recall that amendment.

The CHAIRMAN. The committee has in its possession a purchase request No. 55039 which is signed by Mark E. Bradley, Jr., Brigadier

General, Acting Director of Procurement and Industrial Planning, which verifies the statement preceding the question which I asked. In other words, the costs even from your department are moving rapidly upward from the \$467,000 per plane, and in the purchase order signed by General Bradley for the 24 additional C-119's the cost has gone up to \$713,000 per plane.

In other words, it is moving very rapidly up. In view of the fact that Kaiser-Frazer was supposedly being phased out of the C-119 program commencing June 1951, what were the reasons for ordering 24 additional planes in September 1951?

General Cook. I cannot give you the reasons. I might speculate but it would be pure speculation. I think that I had better defer to—

The CHAIRMAN. Who could tell us that, General?

General Cook. I believe either Mr. Whipple or General Bradley could tell you that.

The CHAIRMAN. Is it not true that the contract for Kaiser-Frazer for producing the C-119 was not finally definitized and approved for 200 planes until May 17, 1952?

General Cook. As I recall it, that is true.

(The document referred to above is as follows:)

FEBRUARY 27, 1951.

FINDINGS AND DETERMINATION

The USAF proposes to enter into a contract with Kaiser-Frazer Corp. on a cost-plus-a-fixed-fee basis covering procurement of 155 C-119C aircraft for the Air Force, and 21 C-119C aircraft for MDAP, including spare parts, special tools, and ground handling equipment, data and tooling, at an estimated cost of \$82,225,896, chargeable to fiscal year 1951 funds, projects 113, 121, and 133.

I hereby find that present conditions warrant the use of a cost-plus-a-fixed-fee contract in connection with the procurement of airplanes, spare parts, special tools, and ground handling equipment, data and tooling. This is the first production contract covering airplanes from this contractor and due to the contemplated increase in production to a peak rate of 250 airplanes per month, the cost of performing said work cannot at this time be forecast with a reasonable degree of accuracy.

I therefore determine that such method of contracting is likely to be less costly than other methods due to the unknowns involved in this procurement.

This determination is authorized by section 4 (b) of the Armed Services Procurement Act of 1947, Public Law 413, 80th Congress.

ORVAL R. COOK,  
Major General, USAF,

Director, Procurement and Industrial Planning.

The CHAIRMAN. Under section 3, paragraph 408, procurement regulation of 1947, amended as of June 1, 1950, it is required that a contract for procurement shall be definitized as soon as possible after the issuance of a letter of intent. Do you consider 18 months "as soon as possible" within the meaning of the term?

General Cook. Yes, sir; I do. That may be—

The CHAIRMAN. May I point out, General, that the letter or contract, or letter of intent under the revised rules, revised to June 1, 1950, says "The letter, contract, or letter of intent shall be superseded as soon as possible by a final definitive contract."

General Cook. Yes, sir.

The CHAIRMAN. Do you consider 18 months "as soon as possible"?

General Cook. In some cases 18 months is as soon as possible, because on entering into an arrangement where we are not certain of what the costs are going to be, and are anxious to proceed on as busi-

nesslike a basis as possible, combined with a reluctance on the part of contractors occasionally to agree on a fee or a target rate of profit that we do not agree with, our negotiations sometimes cover months. We do not blindly accept the contractor's—seldom, if ever—accept blindly the contractor's initial offer as to what he will perform for. We never do, blindly.

The CHAIRMAN. Under the definitized contract of May 17, 1952, for the purchase of 200 C-119's and spares from Kaiser-Frazer, is it not true that the total amount allocated to this contract was \$180,437,399, or an equivalent of \$902,000 per plane?

General Cook. I would have to refer to the record to verify that, Mr. Chairman.

The CHAIRMAN. The cost is going up. It started at \$467,000 on September 1951, then \$713,000, and now, on May 17, 1952, it is \$902,000. Is it not true that subsequent to May 17, 1952, the number of C-119's to be purchased from Kaiser-Frazer was reduced from 200 to 159, without any reduction in the total amount of money allocated under the contract?

General Cook. I do not know the answer to that question, Mr. Chairman. I would have to refer to the record.

The CHAIRMAN. I will ask Mr. Anton to read that in.

Mr. ANTON. You said that as far as the amount was concerned—this is a copy of the contract—under "amount allotted" the amount is for 200 C-119 airplanes and spare parts, \$180,437,399.

The CHAIRMAN. Is it not true that the total amount allocated under the Kaiser-Frazer C-119 contract was increased again on December 4, 1952, to \$198,722,204?

General Cook. It could be, and I would like to say at this point, if I may, that frequently the amounts on such contracts are increased or decreased and independently of the number of aircraft that may appear on the contract. Those increases and decreases can be charged to changes in spare parts requirements or other work to be done under the contract separate from the production and assembly of the airframe itself.

The CHAIRMAN. At the present time the staff members of this committee have informed the committee that they, in turn, have been told that Mr. Edgar Kaiser has made a request of the Air Force for the addition of \$10 million to the Kaiser-Frazer C-119 contract, making a total of \$208 million if granted. In your opinion if this amount is granted will it be sufficient to complete the contract for the 159 airplanes?

General Cook. I am not qualified at this point to answer that question, sir.

The CHAIRMAN. Mr. Anton?

Mr. ANTON. I have here a letter addressed to the commanding general, Air Materiel Command, Wright-Patterson Air Force Base, from S. A. Gerard, vice president of Willys Motors, Inc., which is the new name for Kaiser Manufacturing Corp. In this letter he states:

Supplementing our letter of April 3, 1953, reference (a) above, we submit herewith in accordance with clause 8 (d) of subject contract a new estimate of total expenditures to be made thereunder.

As you know, under the provisions of a contract, once 75 percent of the costs are incurred by the contractor he has 30 days within which to submit new estimates in which to increase the allotted amount of

contract. If he does not do that he will not be paid any more than he is allotted under the agreed contract. Evidently at this point, May 8, 1953, the contractor had incurred 75 percent of \$198,240,655. Therefore it was incumbent upon him to make these estimates for additional funds, or else he would have had to build these 159 planes for \$198 million.

This is a copy of the estimate which was sent to the commanding general at Wright-Patterson. The total asked for is \$208,595,966. The question that I think the committee would be interested in—and I merely want to point this out—is this: take two items in this. One is direct labor. This direct labor cost, prior to May 8, under the most recent change order that the Air Force has agreed to under the contract, amounts to \$20 million. The estimate provided by the Kaiser-Frazer Corp. here to complete this contract now as of May 8 is \$23 million. That means that there is an additional \$3 million which they need to finish the contract.

The incurred cost as of April 30, under this contract, is \$17 million. That leaves \$6 million under which the contractor feels he can finish this contract. At the present moment his current rate is running at \$1 million per month. Do you feel that he can possibly come within this direct labor estimate which he is now proposing?

General Cook. The question you have asked me can be more authoritatively answered by Mr. Whipple, who is familiar with those figures. I am not familiar with those figures. I understand that that proposal is under study by the Air Materiel Command and that would not under normal circumstances reach me at all.

The CHAIRMAN. The committee will take it up with Mr. Whipple.

Mr. ANTON. One more thing: The estimated cost for factory burden, as indicated in this letter, under the latest change order agreed to by the Air Force, is \$62 million. The contractor is now asking, as of May 8, 1953, for \$79 million in order to complete this contract.

The incurred cost as of April 30 is some \$46 million. The average is running around \$3 million a month. That leaves \$32 million. That indicates that he estimates that possibly in the next 10 months he can finish the contract under that figure.

The CHAIRMAN. We will take it up when Mr. Whipple gets here. Mr. Rhodes?

Mr. RHODES. General Cook, when did you go to AMC?

General Cook. As I recall the date, I reported to the Air Materiel Command on the 21st of July, 1948.

Mr. RHODES. I believe at that time you were director of procurement and industrial mobilization planning, Air Materiel Command. Was that your initial job?

General Cook. No, sir, it was not. I had been sent out there as a deputy director of procurement and industrial planning but I never assumed that duty. I assumed the duty of director—I did not assume the duty at that time—I did assume the duty as director of procurement and industrial planning in September of 1949. I do not recall the exact date.

Mr. RHODES. This biographical information was submitted to us by the Air Force and shows that shortly after your arrival at Dayton you became deputy to the commanding general for operations. Is that correct?

General Cook. That is correct.

Mr. RHODES. Generally speaking were you not familiar with the fact that the Air Force had for a considerable period of time been sending teams around the country to do planning surveys of available plants?

General Cook. Oh, yes.

Mr. RHODES. I take it that your understanding of the potential of these plants to produce came from that source; and that you were quite familiar with it.

General Cook. No, it didn't come from that source. I was personally familiar with practically all of the aircraft plants that produced aircraft during World War II because during that time I was chief of the production division of the Air Materiel Command and I visited all these plants on one or more occasions. Several of them many times during that period.

Mr. RHODES. You were then thoroughly familiar with the production capacity?

General Cook. I was personally familiar with the plant layouts in most cases, the type of structure and the type of labor they had, and so forth.

Mr. RHODES. General Cook, I believe you were here yesterday.

General Cook. Yes, sir.

Mr. RHODES. Were you present during the time the chairman, Senator Bridges, was questioning Mr. McCone about the activities which followed the December 5 luncheon meeting, at which time he first became interested, he said, in the Kaiser-Frazer Corp. as a producer of aircraft? When did you first learn that they were going to be phased into the C-119 program?

General Cook. I do not recall the exact date that I first learned about it. I do not recall the exact date. It was as near as I can recall on or about or after the 15th of December.

Mr. RHODES. Between the 5th and the 15th of December you had no knowledge then that there was any consideration?

General Cook. I do not recall. I may have had. At that time we frequently discussed these problems by telephone, personal visits, and as I say, there were many other problems being considered at that time. This was just one of many. My memory is not that good.

Mr. RHODES. It may be that I misunderstood you. I believe you said that at the December 15 meeting that took place in Dayton that the die was pretty well cast to go ahead and use the Kaiser-Frazer Corp. to manufacture C-119's. Is this not correct?

General Cook. Yes, at that meeting. But you asked me whether any discussions had been held.

Mr. RHODES. I wondered had you been forewarned prior to this meeting.

General Cook. I do not recall that I was. But I may have discussed it with someone before that.

Mr. RHODES. But you had not written Willow Run out of your mind entirely, because you had considered it for other use?

General Cook. Oh, yes. It was one of the best aircraft plants that we had during the war and still, as a structure, as a plant, is one of the best we have.

Mr. RHODES. At the meeting it was then decided that the Kaiser-Frazer Corp. would be brought into the C-119 program and there after I believe it was Mr. McCone's testimony—correct me if this

not the case—that on December 20 the letter of intent was prepared which in effect gave them the contract to produce C-119 aircraft?

General Cook. It started them out, yes.

Mr. RHODES. Following this you are familiar with the testimony of Mr. McCone and also I assume that you are familiar with the memorandum which he prepared of January 5, 1951, is that true?

General Cook. I am familiar with that.

Mr. RHODES. Did this have the force and effect of a directive, would you say?

General Cook. Yes.

Mr. RHODES. To you at the Air Materiel Command?

General Cook. Yes.

Mr. RHODES. You look on this as a directive?

General Cook. I most certainly did.

Mr. RHODES. To above all things watch costs on these contracts?

General Cook. Yes, sir.

Mr. RHODES. I believe also—and correct me if this is not the case—in rating personnel, one of the factors you consider is their ability to watch costs, is that not true?

General Cook. That is correct.

Mr. RHODES. How long has that been in effect as a requisite for rating?

General Cook. I do not recall the exact date. I would have to go back to the records.

Mr. RHODES. But it has been a long time.

General Cook. It has been for several years; yes, sir.

Mr. RHODES. So there is no question about the fact that everyone knew that cost consciousness was a guiding principle at that time?

General Cook. That is correct.

Mr. RHODES. And thereafter I assume you set up, as deputy, or someone in AMC set up a means of controlling costs, or watching costs; is that true?

General Cook. We had means of watching and controlling costs, yes. We have had for a long, long time.

Mr. RHODES. I understand. Would you briefly describe the system which was established whereby costs were watched?

General Cook. The system that was established for watching costs did not stem from the change in the officers' effectiveness report at all. It was started years before that.

Mr. RHODES. I did not mean that. It is in principle.

General Cook. Yes. The Air Materiel Command is set up as a business organization on a business—it is a business-type organization although it is operated by a military service. We have cost analysts, competent cost analysts to analyze costs. We have auditors, auditors independent from the Air Materiel Command organization, but the services of the auditors are utilized to see that costs incurred are properly charged.

They also are utilized to call to the attention occasionally of the contracting personnel what they may consider improper charges to see whether or not something could be done about correcting what they consider improper charges. They are not always correct, I mean in determining whether or not a charge is an improper charge or not.

But it is their duty to bring to the attention of the operating and surveillance people, to determine whether charges are improper. As to our contract-administration people and district officers, we have districts that administer contracts after they are negotiated by the Air Materiel Command.

The inspectors are charged also with seeing that the services that are procured are delivered as specified. They are charged with seeing that we get what we pay for. In other words, if the dollar is used efficiently insofar as possible, watching for loafing in the plant, misuse of materiel.

We have procedures for watching the contractor's scrap rate, watching the utilization of people under CPFF. There are a lot of details connected with it. If you would like a statement of that we can make it available.

Mr. RHODES. There is no indecision in your mind about the fact that you had the ability to watch costs?

General Cook. Not at all.

Mr. RHODES. Is there any indecision in your mind about the functioning of that system to sound a warning at the proper levels when these things begin to get out of hand?

General Cook. I would say that in all cases it has not worked as well as I would have liked to see it work. That gets into something that this committee is not concerned with, but it gets into the problem of qualified people.

Up to the 25th of June 1950, the Air Materiel Command was engaged in the process of reducing its procurement personnel and we had gotten our procurement and related administrative personnel down to what I considered at the time a dangerously low figure, and in the succeeding months that force had to be built up.

We were not always able to get the qualified people that we wanted and needed to do the job. No reflection on the people that we have at all, but they had not had experience in that particular game.

Mr. RHODES. The system was good, there was not inability on the part of those people to report and there was a review system up above along the line?

General Cook. That is correct.

Mr. RHODES. Regardless of whether these people were good or bad reporters, the reports would travel forward through the system?

General Cook. They would, provided they always knew what to report and how to report it.

Mr. RHODES. I would like to recall to your mind some answers which you gave to Senator Bridges earlier. In the matter of previous experience of the Kaiser-Frazer Corp., I believe you indicated to him that they had had some experience, but I believe I am correct in interpreting that they had never had any assembly experience.

General Cook. They had assembly experience.

Mr. RHODES. On this type of aircraft?

General Cook. No; not on this type of aircraft. I believe it was a fighter aircraft during World War II.

Mr. RHODES. Comparable experience, would you say?

General Cook. It was experience that should qualify them to be informed on some of the problems that they would encounter in aircraft production.



Mr. RHODES. They had a smattering of experience which you counted in your estimate when you sat at the December 15 meeting?

General Cook. Yes.

Mr. RHODES. I believe you said that you went into the December 15 meeting with Fairchild costs in hand, right?

General Cook. No; I didn't mean to give that impression.

Mr. RHODES. I believe you answered Senator Bridges on a similar question, and I think——

General Cook. The meeting was held at headquarters, AMC. If any information was needed in the meeting as the meeting developed, we had people available at headquarters, Air Materiel Command, with information that they could bring into the meeting at any time it was needed. As I recall it that was an unusual procedure at that time but we had Fairchild costs available there at Air Materiel Command.

Mr. RHODES. That was your yardstick, in other words, the Fairchild costs were your yardstick?

General Cook. Yes, sir.

Mr. RHODES. I believe you said that you had some misgivings about the use of Willow Run in the matter of management, in response to a previous question this morning.

General Cook. My misgiving, as I recall it, about the use of Willow Run, was the business of having a mixed production in the plant, automobiles and airplanes being built in the plant at the same time. But because of the fact as I said there was a great deal of urgency to place work in areas where automobile workers would be laid off, I probably considered that that was more important than just an ideal production situation. It was not an ideal production situation in my view.

The CHAIRMAN. Senator Flanders?

Senator FLANDERS. General, I would like to go back to an earlier question. The question was "Isn't it true that the Kaiser-Frazer C-119 letter of intent contract was amended on January 25, 1951, so that instead of a fixed-price incentive contract it contemplated a cost-plus-a-fixed-fee type of contract?" If I understood you the change was made in part at least under the influence of Mr. McCone's letter asking for strict supervision of overhead costs and other things that might get out of line. That puzzled me a little bit, particularly in view of your subsequent testimony as to your organization for following through costs.

Just why was it possible to follow those costs and correct inequities in it on a cost-plus-a-fixed-fee type of contract in any better way than on a fixed-price incentive contract?

General Cook. On a cost-plus-a-fixed-fee type of contract, Senator Flanders, we have many more people in the plant. We have resident auditors watching the assignment of allocations of cost. We have procedures for watching the operation of the contractor under the contract more closely than we have in any fixed-price type of contract.

Senator FLANDERS. Would you not have installed those auditors and watchers in any event in response to the directive of Secretary McCone?

General Cook. Not in the plant; no, sir.

Senator FLANDERS. I rather get the impression from what you said that you had a pretty good cost following team anyway?

General Cook. Yes, sir.

Senator FLANDERS. And you would not have felt justified in putting in the same sort of controls on this fixed-price contract in spite of that directive from Mr. McCone unless you had changed the contract?

General Cook. Under the fixed-price type of contract, Senator Flanders, we would have watched the performance of the contractor much more closely, but our ability to get into his books would not have been as good under the fixed-price type of contract as it would on the CPEF type where the auditors get daily looks at what is going on.

Senator FLANDERS. You feel there would be legal restrictions in the way of your following the same supervision?

General Cook. I would not say the same legal restrictions, but I think it would be perhaps more correct to say there were procedural restrictions.

Senator FLANDERS. It does seem, offhand, a little strange to me that that directive should have required a change in the type of contract, that is, it does not appear readily and quickly to anyone that that would be the natural result of that directive.

General Cook. I certainly did not mean to imply that that directive required us to go to a cost-plus-a-fixed-fee type of contract. It was one of the things which, as I recall it, influenced that decision at the time.

Senator FLANDERS. Is it not true that you have full access to the accounts, the costs and so forth at Fairchild?

General Cook. It is true.

Senator FLANDERS. Could you not have had the same degree of access to the Kaiser-Frazer account?

General Cook. Yes, sir; we could have, but all of Fairchild's costs—Fairchild is occupying a Government-owned plant and their work is all for the Government in that plant. It is easier to get hold of their costs there than it would be in a mixed operation such as the operation at Kaiser-Frazer.

Senator FLANDERS. Although the mixed operation needs closer looking at?

General Cook. It needs closer looking at; yes, sir.

The CHAIRMAN. Senator Duff?

Senator DUFF. General, under your method of keeping tab from time to time on rising costs, is there any place along the line where you would feel it necessary to stop the whole operation as a result of that manufacturing cost as in this case, where apparently there has been a tab every time the estimated cost has risen over the previous estimates?

General Cook. I am not prepared to say that the costs have been constantly rising. I believe—

Senator DUFF. I mean on the basis of the statements that we have before us.

General Cook. It may be true on the basis of some of the statements that had previously been made but I am not prepared to say that the costs were constantly rising. I believe that that will be developed, whether they were or not, in later testimony.

Senator DUFF. Of course my question is based upon the assumption that the figures that we have are a correct statement of what those costs were from time to time.

General Cook. Those figures, Senator Duff, I do not believe in my opinion can be used factually for direct comparison. We have some—the Air Force has some figures that will be presented in later testimony on cost estimates.

The CHAIRMAN. You do not deny the figures are accurate, do you, General?

General Cook. I do not deny that the figures are accurate, but there are many ways in which those figures could have been arrived at, and I will give some examples. In the first place, as I stated in my earlier testimony, at Willow Run we were not only buying aircraft, we were buying insurance. Therefore we expected to pay more for the aircraft that were produced in that plant than we would pay for aircraft that were produced in another Government-owned plant at Fairchild where the operating conditions were very efficient, that is the plant was being used almost to its maximum capacity. Costs can be taken at different periods on the learning curve.

The CHAIRMAN. General Cook, because of the time element and because of meetings which both Senator Flanders and Senator Duff have to attend besides the chairman having to handle an appropriations bill on the floor of the Senate this afternoon and opening the Senate for the Vice President, which requires me to get there about 12, we would recess at this time and call you back at 10 o'clock tomorrow morning, if that is convenient for you, sir.

General Cook. Yes, sir.

The CHAIRMAN. We will recess until 10 o'clock tomorrow morning.

(Whereupon, at 11:45 a. m., the committee adjourned, to reconvene at 10 a. m., Thursday, June 4, 1953.)

## AIRCRAFT PROCUREMENT

THURSDAY, JUNE 4, 1953

UNITED STATES SENATE,  
PREPAREDNESS SUBCOMMITTEE No. 1,  
ARMED SERVICES COMMITTEE,  
*Washington, D. C.*

The subcommittee met, pursuant to adjournment, at 10 a. m., in room 212, Senate Office Building, Washington, D. C., Senator Styles Bridges (chairman) presiding.

Present: Senators Bridges (presiding), Duff, Byrd, and Symington. Also present: Fred Rhodes, chief counsel; James Anton, special counsel; and Harold M. Devlin, accountant.

The CHAIRMAN. The committee will come to order. As indicated at the close of our session yesterday, we have asked General Orval Cook, Deputy Chief of Staff, Materiel, Air Force, to appear before us again today to complete his testimony, and to answer some additional questions which his testimony of yesterday raised.

There is one point of the proceedings of yesterday which I feel that I must comment on at this time. It was developed that on December 15, 1950 a very important meeting took place at the Headquarters of the Air Materiel Command. It was at this meeting that the decision was made that a contract would be given to the Kaiser-Frazer Corp. to build C-119 planes.

This meeting was felt to be of such importance that a wire recording was made. General Cook, who had participated in this meeting, stated that to the best of his recollection the recording equipment had failed, and that no transcript was made of the meeting. He said that he was unable to produce the recording or a transcript of the meeting.

Since no one minimized the importance of the meeting, and it can be assumed that the failure of the recording device was soon discovered, it seems to me to be almost incredible that some record was not made of the meeting when the events were clear in the minds of all the participants. Certainly someone could have, and I would like to say, should have made a record of what took place at this gathering.

I was interested to note that the meeting was held, and a decision was reached to award a contract without the benefit of cost estimates or a contract proposal from the contractor. Later cost determinations were computed from Fairchild costs, although General Cook stated that he knew that the Kaiser-Frazer costs would exceed those of the Fairchild Corp.

He stated that the Air Force was buying something in addition to C-119 planes—they were buying insurance. Let me repeat my com-

ment that this is very costly insurance. At this point it should be noted that this insurance did not provide the Government with the productive capacity of a full plant—Willow Run. It gave the Government a part of the productive capacity of Willow Run.

General Cook described this as a mixed operation. I take this to mean that automobiles and planes were being produced at the same time. General Cook seemed to have some doubts about the workability of such a plan.

In these hearings we always seem to be returning to the matter of costs. Yesterday in the hearings at several points totals were read to General Cook of the money which had been allocated to the Kaiser-Frazer contract. These figures came from the Air Force.

By the simple procedure of dividing the number of planes into the total amount of money allocated estimates were gained as to what these planes were costing. General Cook repeatedly referred these questions to the fiscal people for verification of the totals.

In response to a question from Senator Duff, General Cook, referring to the growing total sums of money said: "I am not prepared to say that the costs have been constantly rising." Let me point out that these Air Force figures certainly indicate that it is costing us more money that was initially programed for this purpose and we are getting fewer planes.

In order to avoid any confusion, I feel that some clarification should be made of the C-119 and the C-123 airplanes and their respective missions. The C-119 airplane was developed by Fairchild Corp. in 1945. Its function is to carry troops and/or large, bulky or heavy freight considerable distances.

The C-123 airplane was designed by the Chase Aircraft Co. It is a plane considerably smaller in size than the C-119 and it is designed to carry troops and cargo to bases somewhat forward of those which could be used by the C-119.

Before we go on with this, the chairman received a letter this morning from the Henry J. Kaiser Co., from Chad F. Calhoun, vice president, asking that the letter, because it pertinently refers to statements made yesterday, be read into the record this morning.

In order to be fair, the committee is so doing. It is addressed to the committee, and myself as chairman:

At the hearing of your subcommittee this morning, when General Cook was appearing as a witness, there was a strong implication left that our aircraft manufacturing experience prior to the C-119 contract did not amount to much and that one of the companies had gone broke.

The actual fact is that we took over the operation of the Brewster Aeronautical during World War II at the request of the Navy, increased production from 4 Corsair Navy fighter planes to a monthly production of 123, and sharply reduced man-hours and costs per plane. It is a record of which we are all extremely proud, and for which we were highly commended by top Government officials. We did this as a patriotic service at no fee. We had no interest in the company, which had been taken over by the Navy, and we continued to produce the Corsair planes until the Navy canceled out toward the end of the war.

Also, while our Fleetwings Co. (now Kaiser Metal Products) did not produce planes in production quantity (Fleetwings did produce some experimental planes), it did, nevertheless, produce a tremendous amount of major component assemblies for Corsairs, Avengers, B-17's, Havocs, and the Hughes F-11.

I am attaching copies of statements made by us in affidavit form last year covering the wartime production of our management period of Brewster Aeronautical and of our Fleetwings production.

I wish to request that in order that the matter of our prior experience be clarified in your committee hearings, that this letter and its attachments be read into the committee record at the hearings tomorrow morning.

Yours sincerely,

HENRY J. KAISER Co.  
By CHAD F. CALHOUN.

I have read the letter and I will make the letter and the attachments a part of the record.

(The attachments referred to are as follows:)

JUNE 3, 1953.

BREWSTER

The following are the facts concerning the Kaiser operation of Brewster Aeronautical Corp. during World War II:

The material below is from an affidavit signed by Henry J. Kaiser, Edgar F. Kaiser, E. E. Trefethen, and Chad F. Calhoun, prepared in answer to charges made May, 1952, by Congressman O'Konski. This affidavit was incorporated in a speech made in the House of Representatives June 17, 1952, by Representative James Morrison of Louisiana and appears at pages 7759 et seq. in the Congressional Record for that day.

Kaiser donated management of Brewster free to the Government; Corsair production was multiplied 30 times; man-hours were cut to one-third of the starting figure and debts were reduced 50 percent.

In 1943, Kaiser was asked by the Navy and the Government, specifically by the Under Secretary of the Navy, James Forrestal, to help rescue Brewster Aeronautical Corp., which at that time was described as "the scandalous crazy house of United States war production."

For more than 18 months prior to the time that Kaiser help was sought, Brewster Corp., in which the Navy had invested millions of dollars, was considered the Navy's prime production headache. Seven different managers had resigned, and chaotic labor-management relations had brought about a congressional investigation.

In more than 1 year under previous managements, the Brewster Corp. had produced only 8 Corsair fighting planes, vitally needed by the Navy.

Kaiser initially declined the Navy's request to take over the management, but Henry Kaiser did agree to become chairman of the board, and on March 16, 1943, assumed the office. Within 6 months Navy officials requested that Mr. Kaiser assume a more direct control of Brewster and take over the active management.

On October 7, 1943, Henry Kaiser yielded to an urgent appeal from Navy Department officials to become president of Brewster Corp. and brought in his own staff. Two weeks later, the Kaiser organization staked its reputation in a pledge to the House Naval Affairs Subcommittee that he would boost Brewster production many times over.

We ironed out labor-management strife, dissolved a strike threat that hung over Brewster, reduced the number of employees, cut down the number of man-hours per plane, reduced the cost of each plane to the Navy, and—most important—increased plane production tremendously.

*Kaiser's production record at Brewster*

The September 1943 production record under the old management at Brewster was 4 Corsair fighter planes.

Under the Kaiser staff, the delivery record was as follows:

1943:		1944:	
October.....	14	January.....	<sup>1</sup> 60
November.....	40	February.....	74
December.....	73	March.....	101
		April.....	123

<sup>1</sup> Plant was reorganized this month.

In September 1943, prior to the time Kaiser took over, the man-hour record per plane was 24,000.

In October, after Kaiser assumed control, the figure was dropped to about 20,000; in March 1944, it was decreased to 10,000; and in May, to 8,000, or one-third that achieved before he took over.

From October 1943, to May 17, 1944, personnel was reduced from 21,500 to 11,500—nearly a 50-percent cut—and yet plane production steadily increased as shown above.

During the 7 months that Kaiser managed Brewster, executive and administrative payrolls were reduced by approximately \$2,750,000 a year, and a Navy-guaranteed bank loan to Brewster was reduced from \$50 million to \$25 million.

During these 7 months, in addition to the production of Corsairs, existing contracts with Holland and Great Britain for other types of planes also were fulfilled.

By May 1944, the monthly rate of production at Brewster was stabilized at approximately 120 planes—a standard acceptable to the Navy Department—and Mr. Kaiser asked to be relieved.

Kaiser refused any fee or profit from the Brewster operations, which were undertaken only as a public service to the country.

Charles E. Wilson, Chairman of the World War II Aircraft Production Board, wired Kaiser as follows at different times on records established at Brewster:

February 3, 1944: "The Aircraft Production Board is pleased to note that you met your January schedule, and looks forward with confidence to your ability to sustain this achievement in future months."

March 3, 1944: "The Aircraft Production Board notes with pride that our confidence in your company's ability to meet your February schedule has been wholeheartedly proven as indicated by your fine production record for that month."

April 1, 1944: "The Aircraft Production Board recognizes your steady record of sustained production in recent months and congratulates you for your new high in March."

May 3, 1944: "For your April on-schedule performance the Aircraft Production Board extends its congratulations."

Other commendations were received from the Under Secretary of the Navy, James Forrestal, and Artemus Gates, the Assistant Secretary of the Navy for Air, as follows:

James Forrestal, Under Secretary of the Navy, wrote Henry Kaiser March 14, 1944: "We are deeply appreciative of the patriotic task which you and the other members of the board of directors and operating committee have undertaken in improving production at Brewster. For the past several months the rate of production of Corsairs at Brewster has steadily increased and there is every indication that further improvement in production would be made under the present management."

Artemus L. Gates, Assistant Secretary of the Navy for Air, wrote Henry Kaiser May 17, 1944: "I would like to thank you for the fine work which you have done at Brewster and the very real contribution you have made to the war effort. You may be sure that the Navy Department is very appreciative of the task performed by you."

#### FLEETWINGS

The following are the facts concerning the Kaiser operation of Fleetwings, Inc.:

The material below is from an affidavit signed by Henry J. Kaiser, Edgar F. Kaiser, E. E. Trefethen, and Chad F. Calhoun prepared in answer to charges made May 1952 by Congressman O'Konski. This affidavit was incorporated in a speech made in the House of Representatives June 17, 1952, by Representative James Morrison of Louisiana and appears at pages 7559, et seq. in the Congressional Record for that day.

Kaiser Fleetwings (former Kaiser Cargo, Inc.) was purchased in 1943 and at that time was operating two plants producing component parts for wartime airplanes.

These parts were supplied for the World War II Corsairs, Avengers, B-17 Flying Fortresses, Havocs, Seawolf, and Hughes F-11. This company also made hydraulic valves for aircraft. In addition, it made various experimental aircraft, including a confidential experimental dive bomber, experimental helicopter, several experimental planes, and a secret radio-controlled flying bomb. All told the company built over \$73 million worth of aircraft parts and components during World War II.

The plants operated by Fleetwings were never constructed, tooled, or laid out for the production of entire airplanes in quantity, but were established and operated primarily to provide the component parts, such as wings, fuselag

sections, tail sections, etc., under subcontract for the types of planes mentioned above.

After the end of the war, when wartime plane procurement was drastically cut back, the company reconverted to peacetime production. It manufactured commercial articles for General Electric; Sears, Roebuck; Kaiser-Frazer, and other companies. In addition, during the postwar years, it did classified work for the United States Navy.

The company is now owned jointly by the Kaiser interests and Sears, Roebuck. In addition to producing automobile doors and deck lids for Kaiser-Frazer, it also manufactures bathroom and kitchen equipment for Sears, Roebuck. Some time ago, the name of the company was changed to Kaiser Metal Products, Inc.

The stockholders of Kaiser Metal Products have invested and advanced cash in the aggregate amount of \$10,490,000, all of which remains in the company as of this date. In addition, the company, with the cooperation of the stockholders, arranged for a \$4,500,000 bond issue for private placement in 1949. The common stock of Kaiser Metal Products, Inc. is owned approximately 40 percent by Sears, Roebuck and 60 percent by Henry J. Kaiser Co. There are no other stockholders.

In 1943 an RFC 10-year loan for \$1 million at 4 percent interest was obtained. This loan was paid off in full in 2 years and 9 months.

In addition to the nonmilitary items which the company produces, it currently has under subcontract two very substantial aircraft component programs; namely a subcontract with Martin Aircraft for the production of wings for the Canberra jet and a subcontract for major component parts for the Republic F-84-F jet.

The Kaiser Fleetwings Co. under Kaiser management in World War II received praise and commendations from the Army Air Corps for its production records and was awarded the "E" many times. One of the major reasons that this company was selected to provide the wings for the important Canberra jet and the tail sections for the outstanding Republic F-84-F was the record of achievement it made in such aircraft component production during World War II.

The CHAIRMAN. General Cook, will you come forward please?

**TESTIMONY OF LT. GEN. ORVAL R. COOK, DEPUTY CHIEF OF STAFF,  
MATERIEL, UNITED STATES AIR FORCE—Resumed**

The CHAIRMAN. The Air Force, General Cook, had a facilities contract with Kaiser-Frazer in the amount of \$8,450,000, including \$935,745 of overhead in addition to the regular supply contract for C-119's. Will you explain to the committee what this facilities contract covers?

General Cook. Mr. Chairman, I do not have the facilities contract before me. However, in a facilities contract of this nature, I can only tell you what they generally cover. They generally cover plant rearrangement where a contractor has to move machinery out that he has in the plant. They cover production equipment, machine tools and sometimes rehabilitation.

The CHAIRMAN. Is it not also true that the Air Force has furnished to the Kaiser-Frazer Co. tools of a value of \$3,547,987 out of the Air Force tool reserve for which the Air Force received no income?

General Cook. I am not familiar with the exact dollar value of the machine tools that have been furnished to the Kaiser-Frazer Corp. in connection with the production of the C-119 aircraft. I do know that tools were furnished from the Air Force machine tool reserve which is a practice that has been followed with many, many other corporations, including General Motors and others.

The CHAIRMAN. This committee has an estimate from the Air Force that the Fairchild plane costs approximated \$265,000, is that true?



General COOK. On costs, I am not prepared to say what the exact cost of the Fairchild plane is today.

Senator SYMINGTON. Would the Chairman yield?

The CHAIRMAN. Yes.

Senator SYMINGTON. I do not think that was the question, was it? The question that the chairman asked was about the Fairchild costs. Do you not roughly know what that is, General Cook?

General COOK. I know that that figure has been used.

Senator SYMINGTON. Have you not any record in the Air Force what the cost of the airplane is?

General COOK. Yes, sir; I have that record.

Senator SYMINGTON. But you do not know what it is this morning?

General COOK. I do not know definitely what it is now. That cost sounds to me as though it is the cost of the airplane, the airframe, exclusive of tooling and other costs that are generally associated with the aircraft.

Senator SYMINGTON. Mr. Chairman, may I ask another question?

The CHAIRMAN. Certainly.

Senator SYMINGTON. I am sorry I was not here yesterday but the Appropriations Committee had a hearing on the Air Force, and I attended that. Somebody told me that yesterday you talked about the cost of the plane from an insurance standpoint.

General COOK. Yes, sir.

Senator SYMINGTON. Would you mind describing that?

General COOK. During the period between June 25, 1950, and even as late as now, the Air Force has been following what we have been told is a national policy in preparing a broad base from which increased and accelerated production could take place in the event of war; that we were not only engaged in modernizing an Air Force in being but we are also preparing for the eventuality of war. We did that in many cases by providing excess capacity, tooling of a quality that was greater than would be required to produce just the number of aircraft that were ordered; tooling that could be expanded to produce aircraft engines and other equipment at a higher rate than ordered.

Senator SYMINGTON. When you placed an order with Fairchild you knew roughly what that additional cost would be, did you not? In other words, the excess cost over the Fairchild cost when you placed the order with Kaiser-Frazer?

General COOK. We thought we knew roughly what it would be.

Senator SYMINGTON. What did you think it was?

General COOK. I would have to go into the record.

Senator SYMINGTON. Mr. Chairman, may I suggest that be made part of the record?

The CHAIRMAN. Certainly.

(Statement referred to appears elsewhere in the record.)

Senator SYMINGTON. Would you not want to examine at least periodically the difference between that estimated additional cost to take care of the points you made and the actual cost?

General COOK. Yes, sir.

Senator SYMINGTON. Do you know what that difference is?

General COOK. That can be furnished you later on, Senator Symington. I do not have that at my fingertips.

Senator SYMINGTON. May we have that put in the record also?

The CHAIRMAN. Certainly.

Senator SYMINGTON. Thank you.

(Statement referred to appears elsewhere in the record.)

The CHAIRMAN. Mr. Anton?

Mr. ANTON. General Cook, on at least 20 different occasions in your testimony of yesterday, in response to questioning, you replied as follows: "I do not recall," "I do not know," "It may be so," "I am not qualified to answer." When asked about an important meeting which resulted in an expenditure of some quarter of a billion dollars, you said "I cannot remember much about this." When asked about an admitted vital study, you said "I do not recall." When asked about an important amount concerning a contract, you said "I will have to look at the record."

When asked about the allotments of vast sums of money, you said "It may be so." The answers to these questions are in the documents in the possession of your office, and many of them are now in the hands of able counsel sitting on your left. Is able counsel advising you to say "I do not recall", "I do not know", "It may be so", and "I am unqualified to answer", or is this an attempt to hold this committee up to ridicule?

Mr. Chairman, this is a letter from the Secretary of the Air Force wherein he points out to you:

It is my understanding, as set forth in your release—  
and so forth—

that the fullest cooperation will be given to the committee.

The CHAIRMAN. Mr. Talbott, the Secretary of Air, says:

Senator Bridges, in reply to your letter of May 26 I want to assure you that you will have the full cooperation in the forthcoming hearings to be held by your Preparedness Subcommittee No. 1.

He goes on to say that he wants to assist the committee in a continuing and effective manner. In other words, General Cook, the committee feels that you are head of a very important branch of the Air Force and it is a very important part of defense spending how the Air Force money is spent.

We feel that if there were any individual in the Air Force that we could turn to for expert answers and a thorough knowledge you would be the one. The committee, in examining the record, is disappointed that you have exhibited a lack of knowledge of the information we seek, or an unwillingness to give it. We would like to have as positive answers in the future as we can.

Since the spare parts for the C-119 planes produced at Willow Run were also supplied by Fairchild Corp., can you tell the committee why the fee to Kaiser-Frazer was not adjusted and reduced accordingly?

General Cook. No, sir; I cannot tell you that, without referring to the records.

The CHAIRMAN. Will you refer to the records and furnish that to the Committee?

General Cook. Yes, sir.

(Statement referred to is as follows:)

It is not clear from the question raised as to whether the committee desires information in regard to priming parts furnished under the technical assistance agreement or "spare parts" as stated in the transcript. Accordingly, the following statement covers both situations.

At the time of the first negotiation with Kaiser for 200 airplanes, the costs of 14 sets, priming parts, and assemblies were excluded from the Kaiser estimated

cost price. Therefore, no fee was computed on this amount by reason of the fact that it was never included in the estimated cost.

Subsequent to this time it became necessary to increase the total quantity of priming parts so as to cover the next block of Kaiser-Frazer airplanes, namely shop sequence numbers 15 through 30. Since this did not represent a 100 percent prime, Kaiser's fee was not immediately reduced until it could be determined from exhibits to the Fairchild technical assistance agreement what parts were actually furnished and in what quantity. This was determined by early May 1953, and negotiations with the contractor took place at Headquarters, Air Materiel Command, on or about May 20 which resulted in an agreement to reduce the Kaiser fixed fee by some \$40,000 to reflect the work deleted.

There will be some small additional quantity of selected parts beyond ship 30 which will be furnished by Fairchild under technical assistance agreement and the Kaiser contract fee reduction necessitated by this action will be determined on the same basis as was the reduction for parts assistance on the ships 15-330.

In regard to spare parts, there have been from time to time transfers of spares requirements from Kaiser to Fairchild, but during the same time period, additional funds were allotted to both contracts to allow provisioning (i. e., determination of individual items and quantities thereof) of higher percentages of spare parts to meet projected support requirements for these airplanes in service. There was no change in fee on the contract since spare parts moneys are made as a bulk allotment and the individual arrangements of pricing are not established until the items and quantities are selected by a provisioning team. After provisioning, the contractor submits a priced spare parts exhibit at which time the bulk allotted moneys are utilized as required for this purpose and the actual spare parts exhibit is broken down by estimated cost and proportional fixed fee. Since only bulk allotments of moneys were removed from one contract and applied to the other and no transfer of actual spares orders as reported by contract exhibits, there has been no requirement or justification for changing the fee on the Kaiser contract.

The CHAIRMAN. Can you tell the committee how many second-source contracts the Air Force has awarded for the production of airplanes?

General Cook. I can enumerate some of them. I cannot tell you the exact number. The B-47, produced by Boeing, has a second and third source. The F-84, produced by Republic, was a second source.

Those are the only two in which another contractor other than the prime design contractor that I recall at this time—other than the prime design contractor—manufactures in another plant.

There is a second source for fighter airplanes manufactured by North American, which they operate at Columbus, Ohio.

The CHAIRMAN. They operate themselves?

General Cook. They operate themselves; yes, sir.

The CHAIRMAN. The B-47 and F-84 are the only two separate contractors operating and building planes?

General Cook. There is another one: Canadair is also building the F-86, which is a North American production, and they are in Canada. And Canadian Car Foundry, I believe, is building the T-34, which is a Beech.

The CHAIRMAN. Let's take the B-47, which is a jet bomber, and the F-84, a modern fighter plane of the combat type.

What were the dates when the second sources were established for these?

General Cook. May I ask the Chairman to please read that question again?

The CHAIRMAN. The B-47 and F-84, which you referred to, where second sources had been established, what the committee would like to know is, since they are vital combat planes, on what dates did you create second sources for those types of planes?

General Cook. May I refer to the record for that information?

The CHAIRMAN. Certainly.

General Cook. I will furnish it to you later.

The CHAIRMAN. Can you not recall that? Don't you know, General Cook? What we want to establish here is; was the contract which you awarded to Kaiser-Frazer for cargo planes the first second source, or an early second source, as compared to these combat fighter and bomber planes which were so vitally needed?

Which did you do first?

General Cook. My recollection, and this is purely from memory, is that the B-47 was decided upon first.

That may, however, be in error. I would have to consult the records for that.

The CHAIRMAN. Our information indicates—and you can furnish it for the record—that it was after the C-119.

General Cook. I will have to furnish that.

(The statement referred to follows:)

You have asked on what dates the Air Force created second sources for the B-47 and F-84. There were two second sources established for the B-47. A contract was awarded to Douglas on December 28, 1950, for production of B-47's at Tulsa, and a contract was awarded to Lockheed on March 26, 1951, for B-47's to be produced at Marietta. Facilities contracts to support these two second sources were dated January 11 and February 4, 1951, respectively. A second source for the F-84 was established by contract dated December 22, 1950, awarded to General Motors for production at Kansas City.

On January 4, 1951, a contract was awarded to North American for production of F-86's at a second plant to be operated by North American.

It is apparent from this information that the entire second source structure for the B-47, F-84, F-86, and C-119 was established contemporaneously as part of the base-broadening program.

The CHAIRMAN. That is something that is interesting that we should be in such a vast hurry to award these second-source contracts for cargo planes even before we established a second source for insurance on the most vital bomber and fighter combat planes that we had.

Do you recall how quickly we approved second sources for B-47's and F-84's?

General Cook. I do not, sir. As I stated yesterday, Mr. Chairman, there were a great number of different planes being considered at this particular time, and it is impossible for me to recall from memory all the details of all those planes without going into the record.

The CHAIRMAN. The point that the committee is interested in is the jet bomber, the B-47. Here is a modern jet fighter, the F-84, vitally needed in combat.

We are in a desperate situation. Suppose we were attacked. You say you went into the C-119's for insurance—that was one of your principal reasons.

Did you need insurance so badly on a cargo plane or did you need it on the most vital fighting planes that we have? Our records show that your hurry was in awarding the contract for cargo planes, and not in the fighting or combat types.

It certainly makes a very interesting story as to the course of the Air Force in awarding contracts. Whether you were prodded into it or whether you did it on your own judgment or the combined judgment of the group that worked with you on that situation. We would like the records on that developed.

I am sorry that you are not familiar with them so that you could furnish them to us at this time.

Do you consider that the policy of broadening the industrial base required the creation of second sources even though costs at the second source might be five or more times greater than they were at the primary source?

General Cook. In discussing costs again, sir; the starting costs of production on aircraft we know are always higher than the costs that are achieved much later in a program.

I do not recall the exact figures but I believe that the original costs of the first few aircraft that were delivered to us by Fairchild were in the neighborhood of two or three million dollars apiece.

Therefore, you have got to take the same point on the learner's curve at each plant and you have to consider what the loading of the floorspace is; the capacity of the tools and tooling, in order to get a direct comparison.

Senator DUFF. May I ask a question?

The CHAIRMAN. Certainly, Senator Duff.

Senator DUFF. Would not the experience of the one place be available for the next place when they were in the learner's condition, so that the second place would not have to go through all the mistakes and experiences and experiments that the first did when they were making their setup?

General Cook. That is only partially true, Senator Duff; the people themselves who do the work with their hands have to be trained to do it. The supervisory people also have to be trained. That takes time, and it costs money.

It may be that by hindsight this business of difference in cost does look too great. But at the time that this project was initiated, we had requirements for a much larger number of aircraft to be produced than we have today.

The CHAIRMAN. Senator Symington?

Senator SYMINGTON. Presumably a lot of this information, all of this information has been asked, and you will find the answers and submit them for the record.

General Cook. Yes, sir.

Senator SYMINGTON. You might make a graph showing the costs of the Fairchild plane per numbers, and the cost of the Kaiser-Frazer per numbers.

General Cook. That can be done.

Senator SYMINGTON. From what we understand, the cost of the Kaiser-Frazer articles appear to be against the normal concept of the learner's curve. The costs seem to be going up instead of down. Do you happen to know about that?

General Cook. I cannot give you definite figures, Senator Symington, but I do know that the estimates—from looking over some figures, I do know that the estimates have risen recently.

Senator SYMINGTON. Have you seen any evidence that the Fairchild people have not cooperated with Kaiser-Frazer?

General Cook. I have not personally seen any evidence that they have not.

Senator SYMINGTON. What do you mean by "personally"?

General Cook. To my personal knowledge. I have heard rumors that they did not, but they are just purely rumors.

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Senator SYMINGTON. You had no complaint made to you by the Kaiser-Frazer people?

General Cook. I did have a complaint; yes, sir.

Senator SYMINGTON. Who made it?

General Cook. I believe it was Mr. Edgar Kaiser.

Senator SYMINGTON. What was the nature of it?

General Cook. The nature of the complaint, as I recall it, was that they had not gotten engineering information when they required it in order to complete their tooling.

But at the time, in all justice to Fairchild, I must say that at the time Mr. Kaiser, as I recall it, said that he did not think that that was too unusual because of normal difficulties of communication between the engineering department of one company and the engineering department of another. And this is an unusual situation.

Senator SYMINGTON. Did the Air Force investigate that?

General Cook. I believe it did.

Senator SYMINGTON. Was a request made to Fairchild that more cooperation or faster cooperation should be given to Kaiser-Frazer?

General Cook. To the best of my knowledge a request was made.

Senator SYMINGTON. If that is true, and this is the point of my question, if that is true and there was that type of cooperation, would it not be a less costly operation from the standpoint of your design and tool engineering and shop practices?

They had all that for nothing and would not have to learn it. Therefore, would you not expect that the cost of the Kaiser-Frazer plane would be less per unit than the Fairchild plane?

General Cook. No, because, under the circumstances I do not believe that would be true because I believe that most of the initial engineering on the C-119 aircraft had already been amortized in Fairchild costs.

I am not certain about that.

Senator SYMINGTON. You would show that in your learning curve graph. You would show the cost while it was being amortized and you would show the cost after it was amortized and then you would also show the recognized additional cost that you felt would be incidental to starting a new plane in a hurry and so forth, that you mentioned as one of the reasons why the cost would be higher.

What I think the committee would like to know is whether or not the estimates, the original estimates of the higher costs, first, the justification for them, whether or not the original estimates were far exceeded by Kaiser-Frazer in the operation which is the rumor that we hear.

General Cook. May I read some information that I have prepared on that subject? This is a recitation of some factors which are causing higher costs for C-119 airplanes procured from Kaiser-Frazer, and on the same type procured from Fairchild.

Senator SYMINGTON. General, I would like to interrupt before you read that, you would have to ask the chairman if it is satisfactory to read it. Secondly, the point is not whether the costs were higher. I think that there has been justification in the testimony that the costs could be higher. The question is whether the amount of the height means that a good job was done, or a poor job was done.

In other words, what the chairman has been trying to find out, and counsel, as I have been following it, is whether or not the Kaiser-

Frazer Co. stuck to what you thought the cost would be, or whether there was a wasteful operation beyond what that estimate was—or poor operation would be a better word. I can see why it would be higher, but the question is should it be 5 times as high, or 6 times as high, whatever the differential is. Is that not the question, General?

General Cook. I believe it is.

Senator SYMINGTON. If you have anything to show why it is that much higher then I suggest that you give it. If you have not, I suggest you file anything that you have for the record.

General Cook. I believe that this statement that I have can answer some of those questions.

The CHAIRMAN. How long is it, General?

General Cook. It is about three and a quarter pages.

The CHAIRMAN. We will see if it is pertinent. Go ahead and start.

General Cook. I believe it is pertinent. The Kaiser-Frazer direct labor man-hours per airplane are over three times as great due to the fact that they do not have the benefit of learning curve experience which Fairchild has gained on the continuance and repetitive manufacture of over 500 equivalent airplanes of the same model. This is not a peculiarity of Kaiser-Frazer but would exhibit itself to substantially the same degree with any new manufacturer.

The CHAIRMAN. Can you cite other manufacturers that it has applied to?

General Cook. Yes, sir.

The CHAIRMAN. Which ones?

General Cook. It has applied to the F-84F in Kansas City; it has applied to Lockheed at Marietta on the B-47.

The CHAIRMAN. Labor costs have run three times as much on the F-84? Is that what you said?

General Cook. No, sir.

The CHAIRMAN. What did you say?

General Cook. I said this is not a peculiarity of Kaiser-Frazer but would exhibit itself to substantially the same degree with any new manufacturer.

The CHAIRMAN. I understood you to say that the labor curve on Kaiser-Frazer was three times that of Fairchild. Is that what you said?

General Cook. The direct labor manhours per airplane, that is what I said; yes, sir.

The CHAIRMAN. I asked you if there were any other companies where the direct labor hours would equal that. You said the F-84.

General Cook. No, sir. I am not sure that they would be three times. I thought what you were referring to was the next statement that I made, that this is not a peculiarity of Kaiser-Frazer.

The CHAIRMAN. That would be true of anything. On something new the costs might be slightly more. It is hard to visualize going into three times the cost of labor.

General Cook. The variation is especially marked in comparing the producer with Fairchild, whose current direct hours per pound of airframe weight are one of the lowest in the industry. When compared to current industry averages of comparable production increments, the Kaiser-Frazer direct manhours are not excessive.

The CHAIRMAN. That is quite a statement, General.

General Cook. It is the direct man-hours at the beginning of the contract compared to the 500-plane direct man-hour accumulation that I am talking about, sir.

The CHAIRMAN. Why is the cost, every time we get a picture of the cost, going higher as the months go on and the costs mounting, if you are talking about it as it applies only at the start?

General Cook. The Kaiser company had just produced a few airplanes on this contract and they really are at the beginning of the contract as compared to Fairchild who had been manufacturing the same airplane for a considerable period of time.

The CHAIRMAN. How much money have we paid Kaiser-Frazer to date if they are just starting? You say they produced a few planes. The contract is roughly 2½ years old. I would like to know, if they just started in and produced a few planes, how much money the United States Government paid them.

General Cook. As of the 30th of April 1953, according to our records, incurred costs, which represent payments made, were \$150,363,058.

The CHAIRMAN. That is a lot of money to pay somebody who is just starting a contract and who has just produced a few planes, is it not, General?

General Cook. That is.

The CHAIRMAN. This committee is interested in the Air Force part of this. The Air Force is responsible for the spending of the money. We are having hearings before another committee, a subcommittee, which is part of the committee that the chairman of this committee is also chairman of, and that we will have to pass on, as to whether or not the Air Force budget is a tight budget.

If the Air Force itself is not a responsible organization for the expenditure of money, the Appropriations Committee of the United States Senate, which holds the pursestrings in this thing, has to look over the Air Force budget very much more carefully and we cannot go too much on faith. In other words, the Kaiser costs are high, in my judgment, but after all, the Air Force approved it and we are dealing with the Air Force, are we not?

General Cook. Yes, sir.

The CHAIRMAN. The Senate of the United States has nothing to do directly with Kaiser-Frazer. We have to turn to you as our agents in dispensing this money to protect our interests, and therefore we have to have the frank, straight answers from you and we have to see that you are handling the taxpayers' money which we appropriate in a manner in which we get the most planes for the least dollars possible.

That is really the objective of this hearing, to see whether we are getting production of the defense items as far as airplane procurement is concerned for the least dollars. Are we getting a dollar's worth of defense for a dollar spent? Therefore, we have to point pretty directly to you and your associates in this respect.

Mr. ANTON. General Cook, as of April 30, 1953, can you tell the committee how many planes have been accepted by the Air Force?

General Cook. Forty-four airplanes, I am told.

Mr. ANTON. The committee has information that to produce those 44 airplanes the number of man-hours it took to do that at the Kaiser-Frazer plant is four-million-five-hundred-thousand-some man-hours.



Fairchild, on the other hand, we have information, has produced 412 airplanes for 13,933,000 man-hours. What is interesting about this is that at this point the contract at Kaiser-Frazer is about one-third through. Is that not right? About one-fourth through?

General Cook. That is so far as deliveries of aircraft, it is. But on man-hours expended it is much more than one-fourth through. It has to be, or the contractor will not be able to complete delivery of the completed aircraft in the next year.

The CHAIRMAN. General, I want to go back to some questions Senator Symington asked you. He asked you if you had ever heard of any complaints by Kaiser-Frazer against Fairchild. You said you heard rumors. Later you said that Edgar Kaiser had complained to you directly. That was more than a rumor, was it not?

General Cook. Yes, sir. I had heard rumors before Mr. Kaiser came to me. I had heard rumors of it.

The CHAIRMAN. Did you ever see the letter from the Kaiser-Frazer people complaining about it?

General Cook. I would have to go through my records at the time.

Mr. ANTON. Did you ever receive any telegrams or written messages from Kaiser-Frazer complaining about Fairchild?

General Cook. I may have but I would have to go through the records to verify that.

The CHAIRMAN. Would you, and see if you received any written or formal complaint?

General Cook. Yes, sir.

(The statement referred to is as follows:)

You have asked whether I ever received a written complaint by Kaiser-Frazer against Fairchild for lack of cooperation. I recall no such written complaint, and a search of our files fails to indicate that I ever received any written complaint.

The CHAIRMAN. When Edgar Kaiser complained to you, he did it verbally, I understand?

General Cook. As I understand, he did; yes, sir.

The CHAIRMAN. Proceed.

General Cook. Kaiser-Frazer special tooling which is sufficient to support the originally planned production rate at Willow Run of almost four times the Fairchild current rate is fully amortized over the initial contract quantity, which is normal Air Force procurement practice.

This means, however, that each airplane's cost from Kaiser-Frazer includes over \$130,000 for special tools. Had Kaiser-Frazer not been phased-out of C-119 production and the originally planned large follow-on quantities of over 1,000 airplanes been procured, there would be no further charges for tooling. This condition exists now with Fairchild, who have charged off all project tool acquisition costs on previously completed contracts.

The basic manufacturing plan, process planning, flow sequence and supporting machine tool requirements in Willow Run were established and physically implemented when the required production goal was to establish manufacturing conditions to support optimum production at a rate of 93 airplanes per month.

Such an expanded layout with production support operations established for high rate production suffers very adversely in regard to production overhead when operated at a small percentage of capacity so that the unit cost of each article produced at low rate bears a share

burden charge of much higher values than would be experienced at shop load factors more nearly approaching saturation.

Fairchild by comparison has a mobilization capacity of only 35 airplanes per month, is geared to a basic manufacturing plan for rates even lower than this, and operates in a total plant area of about 40 percent of the floor space devoted to C-119's alone in Willow Run.

The Kaiser-Frazer organization, at all levels, was to a large degree unfamiliar with the arts and skills peculiar to the production of aircraft. The unit cost of each of the relatively small quantity of C-119's on order includes a significant, but perhaps not directly assessable, cost incurred for training that organization to build airplanes.

It is emphasized that this conversion of skills necessarily took place primarily within the incumbent personnel structure, since wholesale proselyting from other manufacturers then performing to their capacity on equivalent or higher priority programs could not be, and was not tolerated by either Kaiser-Frazer or the Air Force.

In other words, the C-119 contract is paying not only for a specific airplane and future potential for that airplane, but it is also serving as a vehicle for paying for the creation of a hitherto nonexistent capacity in being for the supply of any other type airplane the requirements for which could not be fulfilled in a timely manner from existing sources.

Again, in direct comparison to Fairchild, current Fairchild prices include no such costs because Fairchild has had over 20 years' experience as an airplane producer, the last 10 of which have been in relatively large volume programs.

Kaiser-Frazer wage scales are somewhat higher on a labor area basis than Fairchild's, and it is also quite possible that individual productivity per dollar expended is greater at Fairchild because of their more stable labor market.

The cost of plant rearrangement, that is, the compression of an operating automobile manufacturing plant into 40 percent of its original area at Kaiser-Frazer, is entirely charged to the 159 Kaiser-Frazer airplanes.

Fairchild costs include no such item since their plant layout has gradually evolved with no radical changes during 7 years of continuous manufacture of the C-119 and its parent, the C-82.

In early stages of the program, Kaiser-Frazer quoted delivery schedules which resulted in such abbreviated manufacturing flow times that orderly, balanced, and efficient shop operations were seriously jeopardized. No such condition exists at Fairchild, which is reflective of the relative degree of aircraft experience of the two manufacturers.

The configuration of the airplane ordered from Kaiser-Frazer had not been subject to manufacturing proof by the licensor—Fairchild—prior to Kaiser-Frazer's entry into its production.

This was caused by a slippage in delivery schedules of the R-3350 engine which did not allow support of earlier phased deliveries of C-119's being produced at Fairchild with that engine.

Under the "broad base" program policy of production support, Kaiser was encouraged to subcontract considerable work, and that, I may add parenthetically, is the reason why there is a difference between the red portions on those two models.

At that time we were told to broaden the subcontracting base, to get subcontractors into the picture so that more people would be trained in aircraft production and aircraft accessory production.

Although their subcontracting was moderate—30 percent of airframe—in comparison to some programs, it is considerably greater than Fairchild's, and involved the same problems of activation in the subcontractor's plants as were experienced by Kaiser-Frazer in Willow Run.

All of the costs of activating these new subcontractors are included in the total cost of the 159 C-119 airplanes at a unit price effect of over \$250,000.

Kaiser-Frazer's direct labor base for aircraft operations has been almost wholly supported by the C-119 aircraft and concurrent spare-parts program. Fairchild has the advantage of spreading fixed overhead over spares reorders which not only increase the direct shop load but tend to smooth out variations in shop loading.

The "stretchout" of the reduced C-119 program at Kaiser-Frazer to maintain a balanced working force availability for the subsequent C-123B airplane, which is still in its early stages, has caused additional charges, primarily in overhead—as a function of time—to the C-119 program which are conservatively estimated at \$6 million. This was considered a more desirable alternative than closing down and subsequently reactivating for the C-123 program.

In conclusion, there can be little comparison between 2 contractors, 1 operating a large plant at a low rate and the other a small plant at a higher rate; 1 experienced and in going production, the other inexperienced and requiring tooling and training; 1 preparing for a high-peak rate of production as mobilization insurance, the other already in the process of achieving its peak and a considerably lower peak; each with the varying concepts of tooling, overhead, and management common to their particular industry.

Even their methods of computing direct labor hours and overhead differ, making costs in this area not comparable.

Under the Kaiser contract, the Air Force set out to create new productive capacity and insurance—both for a growing Air Force and for mobilization reserve and not merely a specific quantity of aircraft.

Because the original quantity has dwindled and production has extended over a longer period of time, the costs per unit necessarily increase and the costs do not proceed as far down the learner's curve as they would with additional volume.

But this is recognizable as part of the cost of buying new capacity.

The CHAIRMAN. Mr. Anton?

MR. ANTON. Under the schedules prepared by the Air Force—I want to point that out—at the same point, that is, as of April 30 of this year—Kaiser-Frazer Corp. has expended in man-hours 8,409,287.

At the same point under the Fairchild contract, in their operation they had expended 4,223,307 hours, which is approximately one-half at the same point in production phases.

That mounts to man-hours per plane for Kaiser-Frazer of 117,000 man-hours, and for Fairchild of 59,000 man-hours per plane.

Can you tell us how many vacation hours are included in the 8,400,000 at the Kaiser-Frazer plant?

General Cook. No, sir; I am sorry I cannot, but I can get those figures if there are any vacation man-hours included.

May I ask you a question, Mr. Counselor? Do those Fairchild figures cover C-119 aircraft exclusively?

Or do they also cover C-82 aircraft?

Mr. ANTON. They cover the C-119.

General Cook. Exclusively?

Mr. ANTON. Yes, sir.

[The committee was advised that records are not available to supply the information requested.]

The CHAIRMAN. General Cook, you testified to the fact that on January 5, 1951, you had a letter from the Under Secretary of the Air Force, Mr. John A. McCone, which cautioned you to watch the Kaiser-Frazer contract carefully.

You also told the staff that you had received repeated admonitions of a like nature from others.

Was this something specially invited to your attention as far as the Air Force contract with Kaiser-Frazer was concerned or did you get similar warnings by letter or otherwise about other contracts which the Air Force had?

General Cook. We were continually cautioned about costs. It was one of my major purposes—to see that we could reduce costs. I have on many occasions orally and in writing admonished our contractors to watch costs.

I have admonished our own people who have the direct responsibility for that, to watch costs.

That is not peculiar to the Kaiser-Frazer contract at all. Does that answer your question?

Senator DUFF. May I ask a question?

The CHAIRMAN. Senator Duff.

Senator DUFF. It is my understanding, General, that in order to keep track of costs and in order to get some measuring stick to go by, that the Air Force has a practice of making an estimate at the beginning of a contract like Kaiser-Frazer as to what in their opinion under all the circumstances the costs ought to be. Is that correct?

General Cook. Yes, sir.

Senator DUFF. When was the first of those made in the Kaiser-Frazer contract?

General Cook. The first definitive cost estimates, as I recall, were made sometime around June of 1951.

Senator DUFF. What were they?

General Cook. The first cost estimate based on the Willow Run situation was the Kaiser Manufacturing Co.'s proposal presented to the Air Force in July 1951.

This was the contractor's proposal prepared as a basis for negotiating a definitive contract to supersede the December 1950 letter contract.

It was related to the quantity of 200 C-119's and totaled \$175,917,000, or a unit cost of \$879,565.

Senator DUFF. Prior to that, in July 1951, at the time that you gave the letter to the Kaiser-Frazer people, proceeding on the basis of your desire to have them make this plane, was there no estimate made as to what the possible cost would be at that time?

General Cook. Under normal circumstances, a rough estimate would be made. I would have to go to the records to find out whether or not a rough estimate was made.

Senator Duff. I think it is very necessary, Mr. Chairman, for the record to have the approximate estimate at the original time of entering into this letter of intent as to what the costs are to be. Because by using that base then we would be able to determine not only efficiency of the Kaiser-Frazer contract but also the alacrity with which the Air Force was watching its follow-through.

(The statement referred to is as follows:)

I indicated in my testimony that the first definitive cost estimate was made in July 1951. I further stated that I would have to go to the records to find out whether or not a rough estimate was made at the time the letter contract was awarded to Kaiser-Frazer in December 1950.

We have found no record of an estimate at that time. It is my recollection that at the December 15, 1950, meeting to which reference has been made, there was some discussion of costs, but we have been unable to locate at Air Materiel Command any presentation on this subject. I do not recall whether these costs referred specifically to the C-119 or to the general program which was then under discussion. For the purpose only of reserving funds to permit the contract to proceed until cost proposals could be prepared, a figure of \$342,000 per airframe unit was mentioned on January 10, 1951. This was expressly stated to be exclusive of all the starting load costs such as tooling, plant rearrangement, preproduction engineering, and similar costs.

The committee has referred to a figure cited in a finding and determination signed by me in February 1951. This figure was \$82 million for 176 aircraft or a unit price of \$467,193. This figure again was not based on any formal or informal cost proposal received from the contractor. At that early date, Kaiser-Frazer did not have firm subcontract orders or other real bases for cost estimates, and therefore an estimate was based on current Fairchild prices in order to obligate funds for Kaiser-Frazer to place orders for long lead-time items. It was realized at that time that the Kaiser-Frazer costs, with the substantial starting load involved, would require substantially more than this amount. Neither of these estimates were related to amounts expressed at any time in the contract itself and were used for internal administrative use only.

As was stated in my testimony, the first real contract estimates were made in July 1951, in the form of a Kaiser proposal. This related to a quantity of 200 C-119's and totaled \$175,917,000, or a unit cost of \$879,585. This estimate was discussed with and considered unacceptable by Air Materiel Command and as a result, a second proposal was presented in November 1951. This proposal became the basis for the definitive contract as finally approved in May 1952, at a total of \$167,991,000, or a unit cost of \$839,952. In the spring of 1952, the quantity to be purchased from Willow Run was reduced to 159 and the delivery schedule was extended along with the stretch-out in all aircraft to extend the production over an additional 9 months. A new proposal was therefore negotiated in the summer and fall of 1952 and resulted in a total cost of \$177,505,000, or a unit cost of \$1,116,383. All of these figures are exclusive of spares.

In December 1952, and again in February 1953, a survey team was sent to Willow Run from Air Materiel Command to make a new estimate. This estimate amounted to \$201 million, exclusive of spares. This represents a unit cost of \$1,267,665. The total airframe cost, exclusive of tooling and plant rearrangement, was estimated at \$997,470, or a total of \$158,597,730.

Summarizing the situation, it can be said that from the time of the original estimate in July 1951, until the present date, the total program cost has increased from \$175,917,000 to 201 million.

The CHAIRMAN. In June 1951, when the decision was made to produce the C-123 plane at Willow Run, why was not the C-119 contract canceled at that time?

General Cook. As I recall the circumstances, Mr. Chairman, the company had already—the Kaiser-Frazer Co. had already started and had completed considerable plant rearrangement for producing the C-119.

They had also commenced to get their organization together to do it. Had we canceled out the C-119 at that time we considered that it would have added considerably to costs that otherwise would have

been incurred and in addition to that we had a requirement, as I recall the circumstances we had a requirement for aircraft—C-119 aircraft—which could not be satisfied at the rate at which Fairchild could produce them.

The CHAIRMAN. During the fall of 1951, when the stretch-out policy was in operation—was first contemplated and then put in operation—was consideration given at that time to the cancellation of the C-119 contract?

General Cook. I believe it was. I am not certain of that.

The CHAIRMAN. Do you have any particular reason why, when it was considered, it was not carried out?

General Cook. The only reason that occurs to me at this time as to why it was not carried out is again a requirement for C-119's at a rate greater than Fairchild could produce them, and the still existing requirement for C-123's.

The CHAIRMAN. Mr. Anton?

Mr. ANTON. General Cook, here is a program schedule prepared by the Air Force, with revisions from time to time made in the contract.

Under the original production schedule as contained in the letter contract of December 20, 1950, what was the completion date for the 134 planes in that contract?

General Cook. I will have to consult the record. The completion date at that time was May 1952. That is of the planes then on order.

Mr. ANTON. May 1952 was the completion date?

General Cook. Of the planes then on order.

Mr. ANTON. When was the first plane completed at Willow Run under this contract?

General Cook. May 1952.

Mr. ANTON. Originally it was contemplated to complete 134 planes by May 1952, isn't that correct?

General Cook. That is correct.

Mr. ANTON. Why was there a slippage in the schedule?

General Cook. That original schedule was completely unrealistic, which we recognized on the 28th of February 1951. That schedule at that time, the 28th of February schedule, calling for 176 aircraft, called for delivery of 2 aircraft in January 1952.

Mr. ANTON. What was the date of completion when the contract was amended on February 26, 1951?

General Cook. December 1952.

Mr. ANTON. How many planes had been accepted by the Air Force by December 1952?

General Cook. Fifteen, according to my records.

Mr. ANTON. What was the date for completion when the contract was amended on September 17, 1951, by increasing the number of planes to 200?

General Cook. March 1953.

Mr. ANTON. How many planes have been delivered as of March 1953?

General Cook. Thirty-seven—according to my record.

Mr. ANTON. Would you explain why these slippages occurred in these schedules? Are all of these schedules unrealistic? Is that the way you make these schedules out?

General Cook. I think that if we will go to the record that it can be said that practically all aircraft and a lot of other munitions sched-

ules at the beginning, are unrealistic, and the reason that they are is because if a schedule is not set up to reach an objective that we feel is a little beyond what the people who have to perform the job say they can do, we will not get what we need when we need it.

We are generally quite optimistic about it. This one was subjected to what we called a stretchout as a result of the so-called stretchout which the entire aircraft program underwent in January 1952.

That was one of the reasons. Another reason was failure of the contractor to meet his estimates, which is not unusual at all.

Mr. ANTON. When was the last realistic schedule proposed, and what was the completion date for 159 planes?

General Cook. February 5, 1953, for 159 aircraft, and the completion date on that was scheduled for December of this year—1953.

Mr. ANTON. In other words, 2 years after the initial estimate is made, the Air Force is still making realistic schedules. That is actually 26 months.

Do you feel, or do you have any knowledge that this schedule will be met? In other words, will 159 planes be delivered and accepted by the end of December of this year?

General Cook. I do not believe that 159 aircraft will be completed by the end of this year.

Mr. ANTON. How much longer beyond December do you feel it is going to take to get these 159 planes?

General Cook. I believe that the 159th plane can be delivered during March of 1954—next year.

Mr. ANTON. What was the estimate as of January 31 of this year as to what it would cost to deliver 159 planes by the end of December, according to your last realistic schedule?

General Cook. According to the last survey that we made of that, which was in February, a group of people from the Air Materiel Command estimated that the total cost of the contract would be \$201,558,688, exclusive of spare parts.

Mr. ANTON. That is for the planes.

General Cook. Yes, sir.

Mr. ANTON. Does that include the \$3 million under the technical-assistance agreement which the Government is paying Fairchild for showing Kaiser-Frazer the know-how?

General Cook. No, sir.

Mr. ANTON. So that actually makes it \$204 million, is that not correct? Roughly \$204 million?

General Cook. If you include the \$3 million to Fairchild; yes.

Mr. ANTON. The \$3 million that Fairchild is being paid?

General Cook. Right.

Mr. ANTON. That is for 159 planes?

General Cook. Correct.

Mr. ANTON. Provided that those 159 planes are delivered by December 31. You just told the committee that it would probably take until the end of next March. Is it not true then that that is not a valid estimate, and that the cost will go up because your estimate is based on a December date, and now you say it is going to take 3 more months to complete this contract?

General Cook. It may possibly go up some; yes. But the greater part of the work, Mr. Anton, on the aircraft, will be completed long before the aircraft are delivered, the man-hours.

Mr. ANTON. Is it not true that you quoted a figure of some \$160 million as having already been incurred as of around April 30?

General Cook. That is correct.

Mr. ANTON. Under the estimate that leaves some \$40 million in which to complete and deliver 115 planes. Do you believe that that can be done within that figure?

General Cook. That is under study now and I am not prepared to say whether I believe it can be done within that figure.

The CHAIRMAN. Mr. Rhodes?

Mr. RHODES. I have just a couple of questions. I believe yesterday you said, General Cook, that when you participated in the December 15, 1950, meeting that the Willow Run plant had been marked off by your people for bomber production; is that correct?

General Cook. As I recall it; yes.

Mr. RHODES. They would have been a secondary source for bomber production?

General Cook. Yes.

Mr. RHODES. As of December 15, 1950, how many second-source contracts had you?

General Cook. I do not know how many second-source contracts had been let at that time, sir. At that time I am sure there had been many decisions made.

Mr. RHODES. But the only 2 that you can remember are the 2 that you told the chairman about?

General Cook. Yes, sir.

Mr. RHODES. I would like to call to your attention a question which you answered as to unrealistic schedules. I believe you said you must take for granted?

General Cook. No. I said that that has been our experience. In most manufacturing operations and production operations it is necessary to set a higher goal most of the time than you are reasonably certain that you can meet, for obvious reasons. It has not been unusual, though, in this program that we have had for us to have unrealistic, what I term "unrealistic schedules." An unrealistic schedule is a schedule that sets a goal far beyond one that you could expect reasonably to meet. Those unrealistic schedules have resulted from several different factors. At the time that these schedules were first made in the latter part of 1950 and the early part of 1951 we contemplated that we would have some controlled-materials plan that would enable our contractors to get the materials. That controlled-materials plan did not materialize. Other things came into the picture.

Mr. RHODES. I believe there are other factors that you may have touched on or probably will touch on that would affect it. The point that I would like to bring to your attention is your testimony of yesterday in which you indicated that there was some question as to how much managerial assistance the Air Force was going to have to lend in this contract, because I believe you said it was a mixed contract where there would be production of two things in the same plant?

General Cook. Yes, sir.

Mr. RHODES. And that caused you some bother. Therefore, with your familiarity, which you testified to yesterday, of the Willow Run plant and its World War II record, you went into it knowing pretty well what that plant could produce?

General Cook. Yes, sir.



Mr. RHODES. How much of that plant were you planning to use in actual production when you set your first schedule at or around December 1950?

General Cook. As I recall—and I would not like to be held to the exact figure—it was around 40 percent.

Mr. RHODES. You were going to use around 40 percent of the plant?

General Cook. As I recall.

Mr. RHODES. So you went into it with misgivings realizing—

General Cook. Realizing that we were going to have trouble of some kind. But at the same time the urgency of the situation was such that we had to get the planes.

Mr. RHODES. I have one other question, Mr. Chairman. You referred in the written statement which you read to the experience difficulty, and this proved a problem to the Kaiser-Frazer people because you said they were an inexperienced organization. I think this runs in conflict to your testimony of yesterday when you said, I believe, that they were picked for the C-119 program because they had had previous aircraft manufacturing experience. Would you want to clarify that?

General Cook. Yes. The top people, as an organization, had had aircraft manufacturing experience. But the management, the people at Willow Run had not had. However, there was some labor available around Detroit that had had previous experience in the old Ford plant. But relatively I would say that they were not.

Mr. RHODES. These are all factors that you knew and considered?

General Cook. Yes, sir. Relatively they were not as experienced as Fairchild was, for example, or other aircraft companies which were in production.

The CHAIRMAN. Mr. Anton?

Mr. ANTON. General Cook, in your testimony yesterday you stated that there were two factors which you had taken into consideration in the procurement of airplanes. Those two factors were facilities and management. Is that not true?

General Cook. Facilities, management; yes, sir.

Mr. ANTON. You also told the committee that the facilities at Willow Run were excellent. Is that not correct?

General Cook. That is correct.

Mr. ANTON. You also stated that you had some misgivings about management at Willow Run due to the mixed-business operation of automobiles and airplanes. Is that not correct?

General Cook. That is correct.

Mr. ANTON. At that time, since you say that the facilities were excellent and you had some misgivings about management, did you investigate the history of this management at Willow Run in December of 1950?

General Cook. May I ask in what manner do you mean, investigate the history of the management?

Mr. ANTON. Under the procurement regulations which we were discussing yesterday one of the requirements was that a financial report should be made on the financial background of the company. I wondered if you had looked into the company insofar as the history of its background is concerned since you were about to utilize it as a producer of airplanes?

General Cook. I am certain that was done at the time.

Mr. ANTON. If you did you must have known that Kaiser-Frazer lost \$39 million in 1949 and had lost, as of September 30, 1950, somewhere in the neighborhood of \$10 million.

General Cook. Yes, I knew that.

The CHAIRMAN. As far as you were concerned, in going ahead, did you have confidence that you were buying insurance?

General Cook. Their losses had been in another type of business, a very highly competitive type of business that they were breaking into, I should say, at the time, or attempting to break into. That fact was known to us.

The CHAIRMAN. With the loss of the money were they financially able to carry on all right at that time?

General Cook. Under the arrangements that were made for financing, as I recall it, they were.

The CHAIRMAN. What do you mean by the "arrangements made for financing"? Do you mean as a result of advances on the Government contract or what?

General Cook. I would have to call on some of our financial people to advise on that matter.

The CHAIRMAN. Would it have to do with the RFC?

General Cook. I am not sure that it would have to do with the RFC.

The CHAIRMAN. What we are interested in, General, as you know, is this contract which you said was to provide insurance and what steps you took to protect the Government in awarding a contract to a company, as Mr. Anton said, which had lost money the previous year. What assurance did you have that it was good insurance, with respect to its capabilities to perform? You must have done some investigating of that?

General Cook. Our financial expert at Headquarters, Air Force, took steps to see that the Government was protected financially, to the best of my knowledge. Mr. Seftenberg, who is in Headquarters, Air Force, could give more details on that.

The CHAIRMAN. So that you did have advice from your financial authority as to their ability to perform so far as the financial aspects of the company were concerned?

General Cook. Yes, sir.

The CHAIRMAN. From your own people who had made the investigation, headed by whom? What was his title?

General Cook. Mr. Seftenberg. He was not in the initial proceedings on this but he later got into the matter. I believe Mr. Loufborrow—I have forgotten exactly who it was who handled that, but I believe it was Mr. Loufborrow at Dayton.

The CHAIRMAN. But you at all times, as far as you were concerned, took steps so that you felt in your own mind you were protecting the Government's interests in their ability to perform?

General Cook. Yes, sir.

Senator BYRD. Could I ask a question?

The CHAIRMAN. Certainly.

Senator BYRD. Did you make any unusual advances to the Kaiser-Frazer Co. beyond your ordinary policy? When you made the contracts did you make advance payments that you are not accustomed to make?

General Cook. I do not recall that we did, Senator Byrd. I do not recall that there were any advance payments made. I do recall, however, at the time that in making progress payments the Air Force changed its policy sometime I believe in 1951, perhaps it was early in 1951, to change the partial payment or progress payment percentage from 75 percent to 90 percent of the incurred costs.

Senator BYRD. You mean that is before delivery of the planes?

General Cook. Yes, sir; before delivery.

Senator BYRD. In other words, you paid 90 percent before you tried the planes out to see if they were satisfactory?

General Cook. Before they had been flown; yes, sir.

Senator BYRD. Is that the customary plan?

General Cook. Yes, sir.

Senator BYRD. There was no departure from that so far as Kaiser-Frazer was concerned?

General Cook. No, sir.

Senator BYRD. As I understand the testimony, General, it cost the Government five times as much per unit for the planes that were made by Kaiser-Frazer. Is this just one instance of that, or have you other contracts that would indicate the same increased costs?

General Cook. The same degree of difference?

Senator BYRD. Approximately the same.

General Cook. I do not recall of any other contract in which there was the same degree of difference.

Senator BYRD. Do you have any that have other degrees of difference? Say twice as much? This is five times as much. In other words, is that a general practice of the Air Force to make contracts in that way that cost them 4 or 5 times as much as with some established firm?

General Cook. Whenever a new contractor is brought into production, Senator Byrd, and has to go through the processes of tooling up and learning, the costs may be several times the cost of an item that is being procured from an old established manufacturer who has amortized his costs.

Senator BYRD. In other words, you subsidize in a sense a new manufacturer. Does he ever pay any part of that subsidy back when he gets into established production and he gets further contracts?

General Cook. Regardless of who does it, sir, all of those costs are absorbed. The same thing was done in this particular case. The Government paid all the costs of Fairchild, too, in their initial starting.

Senator BYRD. What do you mean? Do you pay the costs plus profit?

General Cook. The Government paid the costs of the development on the C-82 aircraft which was the predecessor of the C-119; the costs of the development of the C-119, and the tooling and production costs of the airplane itself, and the costs of tooling, the learning costs, were all amortized in the cost of the aircraft.

Senator BYRD. Do you do the same thing with a new company that takes an established model? You are speaking of new models?

General Cook. Yes, sir.

Senator BYRD. Suppose a model has already been established, that you have the know-how and you know how to do it. Do you still

subsidize a new company that goes into the construction of an old model that has been tried out and that you know all about?

General Cook. Yes, sir.

Senator BYRD. So there are two elements to it. One is where you have a new type of plane and the other is where you take a new company that manufactures an old type of plane, and both of them are subsidized?

General Cook. In both of them, the learning costs, the tooling costs, are amortized in the cost of the aircraft.

Senator BYRD. I can see some justification for a new type of plane but it seems to me that unless it is a matter of supreme urgency that you should not pay 5 times as much for a plane that has already been manufacture and about which all the technique is known.

General Cook. Senator Byrd, we do not want to pay any more than the lowest possible cost that we can get an aircraft or engine for, unless the aircraft or engine cannot be delivered from the low-cost source in time to meet our requirements, and then we have to go somewhere else.

Senator BYRD. Here is the most extreme example, you say 5 times as much. Have you any 4 times or 3 times as much, with other contracts?

General Cook. I would have to go through the record to establish that, sir.

Senator BYRD. I think, Mr. Chairman, it would be pertinent to this inquiry to see what other contracts have been made along this same line.

The CHAIRMAN. I think so, too.

Senator BYRD. In other words, any contracts that are in excess of the cost of an established company. I realize there has to be some latitude but when it gets to 4 and 5 times as much I think it is all out of reason. I would like to ask, Mr. Chairman, that a complete statement be made to the committee of any new companies that start to manufacture planes, and what was paid them in excess of some other company that was making them on the same basis, and the reasons for them.

(The statement referred to is as follows:)

*Summary—Airframe cost data, initial quantities for selected airplanes*

	Unit prices		
	Initial budget estimate	Initial contract price	Anticipated cost
F-84F, Republic.....	\$131,954	\$195,182	\$492,440
F-84F, General Motors.....	237,047	671,431	751,826
F-86F, NAA, Inglewood.....	208,531	111,710	126,785
F-86F, NAA, Columbus.....	309,100	146,533	191,851
B-47B, Boeing.....	2,693,378	1,897,413	2,153,140
B-47B, Lockheed.....	1,777,123	1,983,762	1,862,716
B-47B, Douglas.....	1,379,312	1,657,014	1,657,014

Senator BYRD. Your contracts are made on a firm basis, are they? And old firm like Fairechild, do they get a firm contract? Do you make a firm contract or is it cost-plus or how is it made?

General Cook. There are in general three different types of contracts that we use. One is the straight fixed-price contract. That

means a flat price where everything is to be delivered. The other type—

Senator BYRD. That is what I would call a firm price, a definite price, unless there are changes in design.

General Cook. Unless we make changes in the statement of work, or of the design of the aircraft.

Senator BYRD. Is that a customary method of purchasing planes?

General Cook. Unfortunately, it is not.

Senator BYRD. What percentage of them are purchased in that way?

General Cook. The straight flat price? I do not recall of any aircraft that are purchased on the straight flat price basis today.

Senator BYRD. Then you would eliminate that. That is not one of the ways that you buy them. What is the way?

General Cook. The next is a modified fixed price or firm price contract in which a target price is established initially, and after the contractor has completed a portion of the work under the contract, a fixed price is redetermined. From there on out, from that point on out, the contractor accepts the risk for whatever judgment—

Senator BYRD. It is to be redetermined on some basis of profit. You have to have some basis of what profit they should have.

General Cook. Ordinarily some target profit is set up.

Senator BYRD. What is it? What percent?

General Cook. It may vary from around 4 percent to 9 or 10 percent.

Senator BYRD. Why should it vary?

General Cook. It all depends on many factors, Senator Byrd. One thing that we take into consideration is whether or not the contractor is using his own facilities or whether he is in a Government-owned plant; whether or not the machine tools in that plant are his, or whether they belong to the Government; what his net worth is, how much he is risking in the enterprise, the volume of the business that is being considered.

Senator BYRD. What is the highest percent that you could pay?

General Cook. This would be a very rough figure, Senator Byrd. As I recall it some of our aircraft accounts have turned out to be around 9 or 10 percent.

Senator BYRD. That is 9- or 10-percent profit on the amount that they received for the plane; is that correct?

General Cook. Yes, sir; on cost.

Senator BYRD. If a plane costs \$100,000 they would make 10 percent, or \$10,000 profit?

General Cook. Yes, sir.

Senator BYRD. Out of that profit would the depreciation be deducted? Or taxes? Or anything like that? Would it be a net profit?

General Cook. No, that is not the net. The net profit runs much lower than that. That is profit before taxes.

Senator BYRD. It would be profit after depreciation, though, would it not?

General Cook. If they had depreciation added into it, yes, sir; that is one of the elements of cost.

Senator BYRD. They have depreciation. If they have machinery they have to depreciate.

General Cook. That depends on whether they own the machinery or whether the Government owns it.

Senator BYRD. In other words, what is known as profit before taxes.

General Cook. Yes, sir.

Senator BYRD. That is one way. You say you don't buy any of them on a firm basis, any planes. What is the second way that you purchase them?

General Cook. The third way—

Senator BYRD. Make it second, because you have only one.

General Cook. Cost-plus-fixed-fee type of contract.

Senator BYRD. Explain how that works.

General Cook. That is not a cost-plus-a-percentage-of-cost. The Government and the contractor negotiate on an estimated cost. That is a target cost. They decide on a fixed fee on that cost. That fee remains fixed whether or not the contractor's costs are under or over the estimate.

Senator BYRD. That is based more or less on a percentage, is it not?

General Cook. It is based somewhat on a percentage; yes, sir. If the contractor, of course, runs under for a fixed fee, there has been no change in the statement of work under the contract, then his percentage is higher, relatively, than if his costs run over investment. The percentage of profit that he makes is higher, relatively.

Of course if a change is made in the statement of work, or change is made in design that did not enter into the original estimates, then a fee is calculated on that, also. But if there is no change, there is no change in the fee, regardless of what his costs may be.

Senator BYRD. Which plan is the best plan for the Government and the fairest one to the contractor?

General Cook. You are asking my opinion, sir?

Senator BYRD. Yes.

General Cook. In my opinion the best plan for the Government, if we could secure it, would be a firm price contract.

Senator BYRD. But you have not made any firm price contracts.

General Cook. No, sir. That is my opinion. But there are practical reasons why it was impossible to get any contractors to agree to fixed price, straight fixed-price contracts. Among those practical reasons is the great amount of bank borrowing that they would have to resort to, changes in prices of materials and changes in labor costs that they could not accurately predict in a time of operation on a seller's market, I should say.

So that they were not willing to take that risk without way overpricing what we were trying to buy. So we have had to resort to the other forms of purchase.

Senator BYRD. You have the other two forms. Which is the better of the two?

General Cook. I believe if a contractor is going to produce a large number of items that the modified fixed price contract is the best one, if he has had experience in the manufacture of the item, and the only things that he may be hedging against are fluctuating labor and material prices. That is the best, I think, for the Government.

Senator BYRD. You explained the second one. How about the third one? Do you think the second plan is the best plan? You call it the second, but it is really the first plan because there are only two plans. You don't use the fixed-price plan. The first plan you think

is the better plan whereby you let the contract go along and readjust it from time to time, as I understand it. Is that it? And pay out a percentage of profit?

General Cook. Oh, no. It is adjusted at predetermined periods.

Senator BYRD. It is adjusted during the time of manufacture?

General Cook. Yes, sir.

Senator BYRD. That is what I mean, it is adjusted from time to time and then you give a percentage profit which you said ran from 4 percent to 5 percent or 10 percent; is that right?

General Cook. Yes, sir; but that is on a target price and not on actual costs.

Senator BYRD. That is the second plan?

General Cook. Yes, sir.

Senator BYRD. I want to get them in my mind. The first plan as I understand is a plan whereby you fix a price to start with and then you readjust it during the period?

General Cook. Yes, sir.

Senator BYRD. Then they get a—

General Cook. Forward looking.

Senator BYRD. Then at the end they finally get a percentage based on certain factors such as you say—how much capital they have, and how much business they get from the Government, et cetera?

General Cook. No, sir, not at the end. I would like to correct that, Senator Byrd. It is not a cost-plus-a -percentage-of-cost proposition. During intervals or periods in the life of the work that is being performed, the contractor estimates what it is going to cost him forward and that is a target estimate, but he is paid a profit on that target estimate. He can reset that target later on but he does not get a fixed percentage on his costs during that period.

He gets a percentage based on his estimates during the period. We must agree to those estimates.

Senator BYRD. If his estimates are correct, he gets a percentage on the costs?

General Cook. Yes, sir.

Senator BYRD. In actuality it pretty nearly gets down to a cost-plus basis. You accept his estimate, do you, without investigation?

General Cook. No, sir, we do not accept his estimates. Those are negotiated.

Senator BYRD. What is the difference between that plan and a straight-out cost plus? You have the right, of course, after the first estimate is made, to either reject it or accept it.

General Cook. That is correct.

Senator BYRD. But he still gets a percentage?

General Cook. He can lose money on one, but he cannot lose money on the other. That is the difference between the two. Except on cost-plus-a-fixed-fee contracts, if the contractor accumulates costs that are not covered in the contract, and he attempts to collect them under the contract, we disallow those costs.

Senator BYRD. How could he lose money if you readjust the cost of it during the time that it is being manufactured? He makes an estimate and if that estimate is too low he can ask for readjustment, can't he?

General Cook. Only in forward, not for what he has completed.

Senator BYRD. How often can he ask for that? What percentage of the plane has been completed when he can ask for another estimate, which is what it is.

General Cook. Those vary. Normally we set the target at around 30 percent completion of the contract.

Senator BYRD. In that case he stands to lose only 30 percent.

General Cook. He stands to lose only 30 percent. If he guesses wrong on the additional 70 percent, he stands to lose on that, also.

Senator BYRD. As a matter of fact very few would lose on that basis, would they?

General Cook. Not if they are good businessmen.

Senator BYRD. Do you know of any that have lost?

General Cook. Not offhand.

Senator BYRD. Certainly Kaiser-Frazer did not lose, did they?

General Cook. I do not think they have lost any yet. But there have been some disallowances.

Senator BYRD. I still think that the plan whereby you permit them to refix the estimate upon which they get a percentage is pretty nearly the same as a straight cost-plus contract.

General Cook. On the Kaiser-Frazer contract, sir, that is a cost-plus-a-fixed-fee. That is not the modified fixed price type of contract.

Senator BYRD. I understand. I am talking about this particular type. Let's finish on that first. You contend that it is not a cost-plus. Of course it is a modified cost-plus.

General Cook. It is a modified fixed-price also, sir.

Senator BYRD. It is modified only to the extent that the contractor makes an estimate and then after he completes 30 percent of it he can make another estimate or ask for a reconsideration of it.

General Cook. We can do the same thing by another method, Senator Byrd. We can make a series of fixed-price contracts on the same amount of work which would achieve the same result in the end.

In other words, if we could assure him legally that he was going to get the whole order—using as an example 100 airplanes—if we could assure him that he was going to get an order for 100 complete aircraft, and then after 30 percent of the work has been done on the 100 aircraft he accepts the risk on the first 30 percent of meeting a fixed price, if we could divide the 100 up into 30, 30 and 40 lots and have fixed price contracts on each one of those lots, we would achieve about the same result.

Senator BYRD. It is based on the principle, pretty much, of a cost-plus contract; percentage plus cost. It is on that basis, but it is not entirely so. It is modified.

General Cook. It is based upon the principle of not paying inordinate cost prices for something that the contractor feels that, in order to enter into a fixed-price contract for, he must set an exceptionally high price on in order to protect himself against rising costs of materials and labor.

Senator BYRD. I can see it is better than a straight cost-plus, but it is somewhat along the same basis. The second plan, the fixed fee, is that the one you prefer?

General Cook. No, sir; I don't prefer that one.

Senator BYRD. Which one do you prefer? The one we have just been discussing?

General Cook. I prefer the No. 1, fixed price.



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Senator BYRD. There is no use talking about that because you have not made any contracts on fixed price. Let's eliminate it. Have you any idea that you will make a contract on a fixed price?

General Cook. Not under the circumstances.

Senator BYRD. Then let's not talk about it. Let's talk about something realistic. Let's not talk about something that never happened yet and that you do not think will happen.

General Cook. It has happened in the past, sir; years ago.

Senator BYRD. But you have just said that you do not expect it to happen, so I do not see why we should confuse this inquiry by bringing that in. Explain the 2 that you think are going to happen within the next 12 months. Let's confine it to that. Which one do you think is the better for the Government?

General Cook. I believe that the best one for the Government is for a large quantity of aircraft to be produced by a contractor who is an experienced aircraft contractor, with a modified fixed price form of contract. I believe that is best. That is the first one that you and I have been talking about.

Senator BYRD. That is better than the fixed fee?

General Cook. Cost-plus-fixed-fee, yes.

Senator BYRD. With cost-plus-fixed-fee, no matter how much it costs, the fixed fee does not change, is that correct?

General Cook. That is correct.

Senator BYRD. You have to fix the fee when you first start.

General Cook. That is a fixed fee; yes, sir.

Senator BYRD. What protection have you got that the costs are not unduly excessive or that companies that manufacture automobiles, like Kaiser-Frazer—

General Cook. We place auditors in the plant. We have residencies established in the plant, inspectors, auditors, contracting officers, whose duty it is to watch these costs. What it really amounts to, I believe, finally, is that the Government really retains a contractor to operate a plant for the Government. Really that is what it gets down to.

But as his costs are incurred, he submits invoices. For example, material is shipped in to his plant. He submits the invoice to the resident auditors and inspectors who check to see whether or not the material actually was received, and then that invoice is paid by the Government.

Senator BYRD. Paid direct?

General Cook. It is paid to the contractor by the Government. He in turn pays his supplier. That is, roughly, the mechanics that are followed.

Senator BYRD. In a plant like Kaiser-Frazer that has another business, like the automobile business, how do you divide the plant and figure the depreciation that is chargeable to the airplane and the part that is charged to the automobile production?

General Cook. Our intention is to charge, on the depreciation and the overhead and maintenance and other costs that may be incurred in the plant, only that part which is properly chargeable to the airplane production.

Senator BYRD. Is it possible to do that?

General Cook. Yes, sir; it is possible.

Senator BYRD. Did Kaiser-Frazer send in any bills or statements that you thought were excessive along those lines, or not?

General COOK. I believe that Kaiser-Frazer has submitted invoices.

Senator BYRD. I am advised here that Kaiser-Frazer, in this plant, have 65 percent charged to airplanes, of the entire plant overhead, labor formula and depreciation, and for automobiles only 35 percent. Is that a fair distribution, or not?

General COOK. It depends upon the work that is done, Senator Byrd, in that plant. I would have to ask our auditors to testify on that.

Senator BYRD. It seems to me that is a pretty important factor in this particular contract, with 65 percent charged to airplanes—I know nothing about it. They are making automobiles also.

General COOK. Yes, sir; they are.

Senator BYRD. It may be excessive. All that is gone into, then if they bill the Government in excess of what you think it ought to be, you don't pay it?

General COOK. No, sir; that is disallowed.

Senator BYRD. Don't you pay it and then disallow it later? I saw some figures.

General COOK. The usual procedure is to disallow it and not to pay it.

Senator BYRD. Isn't it true that Kaiser-Frazer was paid some money that they are now supposed to pay back to the Government, that had been disallowed after the Government paid it?

General COOK. I do not know whether that is correct or not, sir.

Senator DUFF. I think it is important, General, at the hearing tomorrow that we have those figures on your first estimates of cost. That is going to be the basis upon which observations can be made as to your familiarity with the overall picture at the time that you made those estimates, and that would have some bearing on the overall operation all the way through. I think it would be fine to have that the first thing.

I would like to ask you, in view of the questions yesterday and today, whether it is not a correct observation that in considerable part very grossly excess costs are charged as a result of not having any fixed long-range policy, this hurry-up business, like this job was here, if it had not been hurry-up, but had been a part of a policy to provide a certain type of plane over a period of years, that you would not have been subjected to the excess costs that you have in this situation?

General COOK. Senator Duff, that is very, very true. I feel—may I expand upon that?

Senator DUFF. Yes, I would like to know.

General COOK. I feel that the United States has been subjected to the unnecessary expenditure of, I will say, billions of dollars because of the fact that the aircraft production and all munitions production—I will not stick to aircraft production alone—that the program is extremely low at one time and high at another time, and haste always cost money.

Regardless of how efficient people may be, waste always accompanies haste. Sometimes it is very discouraging to those of us in the military service who are conscious of what these things mean in cost, to be placed in the position where, to get the aircraft, the equipment,

the munitions that we are sure are needed to protect this country, it costs us unnecessary money.

Senator BYRD. In other words, regular contracts and regular orders would get you lower prices?

General COOK. Oh, yes, sir.

Senator BYRD. The manufacturing plant would adapt itself?

General COOK. Yes, sir.

Senator DUFF. That kind of program would save billions of dollars in the Air Force in the protection of the country?

General COOK. In the long run it would, sir. I will expand on that and say that it not only would apply to the Air Force but to the other Armed Forces as well.

Senator DUFF. Mr. Anton?

Mr. ANTON. General Cook, in view of the discussion this morning regarding the slippages in the production schedules, in the semiannual report of the Secretary of the Air Force for the period January 1 to June 30, 1952, it is stated:

In January 1952 the armed services agreed upon a basic policy for terminating defense contracts under which production had not been completed. This policy provides guidance and procedures for the termination of contracts entered into under the Armed Services Program Act of 1947.

Will you explain why it was not applied to the contract for the 159 C-119 airplanes which had been awarded to Kaiser-Frazer?

General COOK. That policy applies to the complete termination of aircraft or a contract for any equipment. There was not a complete termination at Kaiser-Frazer, to my knowledge. There was at Park Ridge, with Fairchild.

Mr. ANTON. What do you mean by "complete termination"?

General COOK. The contract was not canceled.

Mr. ANTON. I believe the committee would like to know why this policy was not implemented. If you will recall the question, the question was that the policy was laid down for termination of the contracts which had not been completed. These schedule slippages indicate that the contract is not being completed at the time it was supposed to have been completed according to your schedules.

General COOK. We still needed the aircraft and we were quite certain that we would get the aircraft. Also we thought we needed the capacity at the time. It was not our desire to terminate at that time.

Mr. ANTON. Then the issue is that capacity——

General COOK. We would have applied that policy to that contract had it been terminated.

Mr. ANTON. Then the issue is that actually plant space was what you needed and what you were going to keep regardless of the cost?

General COOK. No, sir. We needed the aircraft also.

Senator BYRD. When was the last contract made with Kaiser-Frazer?

General COOK. There was only one contract made.

Senator BYRD. In your programing do you intend to make further contracts with Kaiser-Frazer?

General COOK. For these C-119 aircraft?

Senator BYRD. Are you going to make any further contracts on the same basis that you now have?

General Cook. At the present time I do not know of any that are contemplated, no.

Senator BYRD. In other words, you do not expect to use the Kaiser-Frazer plant although you have practically—

General Cook. Oh, yes, sir. This C-119 aircraft production that is being accomplished at Willow Run at the present time will be followed by production of some C-123 aircraft in the same plant.

Senator BYRD. What kind of contract will you make then?

General Cook. As far as I know it will be the same contract as now.

Senator BYRD. In other words, you will continue to pay 6 or 7 times as much to Kaiser-Frazer as you do to some other plant? I am wondering when you are going to stop subsidizing Kaiser-Frazer. There ought to be some time when they are subsidized enough, especially in view of the fact that they have got tremendous Government loans, starting with \$89 million.

Are you going to make the same kind of contracts with Kaiser-Frazer whereby it costs six times as much as it does in other plants?

General Cook. The contracts that we will make, sir, will be what we consider the most advantageous to the Government.

Senator BYRD. You said, as I understood you a minute ago, that you were going to contract in the same manner as you did in the past.

General Cook. We might consider that the most advantageous to the Government.

Senator BYRD. Certainly it has not been advantageous in the past, has it? Anything that costs 5 or 6 times as much as another plant that puts out the same plane I do not call that very advantageous.

General Cook. Those figures, sir, are based upon low-volume production. I would expect the costs to go down as this company proceeds with its contracts.

Senator BYRD. It certainly should go down, should it not?

General Cook. Yes, sir.

Senator BYRD. Can you furnish the committee a statement of what you have programed for Kaiser-Frazer from now on?

General Cook. Yes, sir.

Senator BYRD. And what would be the total cost of the planes and how long you expect delivery on them to take and so forth?

General Cook. Yes, sir.

(The statement referred to is as follows:)

The program for Willow Run as it has been developed is for the completion of the present C-119 contract and for the major portion of the production of C-123's which has already begun and which will be completed on present schedules in January 1955. A change in the C-123 program is presently under study, but the present C-123 situation, as reflected in existing contracts, is as follows.

The Air Force entered a letter contract with Chase Aircraft Co., Inc., under date of March 12, 1951, initially for necessary preproduction engineering on this airplane. On June 5, 1951, the production of C-123's was ordered under this contract. A definitive contract superseding this letter contract was negotiated and was finally approved on February 17, 1953. This contract now calls for 243 C-123 aircraft, a static test article, spare parts, special tools, training parts and units, engineering services and handbook data. One aircraft has been built by Chase Aircraft under this contract. Further deliveries begin in September 1953. The contract is an incentive type cost-plus-a-fixed-fee contract entered into with a target cost of \$225,873,282, which covers not only the airframes but the tooling, spare parts, starting load of subcontractors and other such items. Of course this estimated amount will be revised if there is a reduction in the present program.

Chase Aircraft Co. has a subcontract with Willys Motors, Inc. (formerly Kaiser Manufacturing Co.), under which the major portion of the work will be done at Willow Run. Although it cannot yet be determined exactly what portion of the costs are allocable to the work done by Willys Motors, Inc., this portion will be substantial, as the initial tooling and the subcontractor's starting costs will be incurred by Willys Motors under its subcontract.

Senator BYRD. You expect to continue to use the plant?

General Cook. Yes, sir.

Senator BYRD. In about the same measure that you are now using it?

General Cook. Yes. About the same.

Senator BYRD. Could you make some estimate of how much more you would have to pay Kaiser-Frazer for these future contracts than you would some other company that is operating more economically?

General Cook. We cannot make accurate estimates at this time on that because the plane that they are to build is one that has not been manufactured in quantity before. Any estimates that we make on that would be nowhere near as accurate as estimates that could be made on other types.

Senator BYRD. It seems to me that this has been unduly costly with Kaiser-Frazer. I can understand it costing twice or three times as much. When it gets to 5 or 6 times as much, that is getting into a field that you should look into. If it is unduly costly and if it is inefficient and not managed properly, I do not see why you should continue to give a contract to a company that will cost 5 or 6 times as much as another manufacturing plant.

There must be a time coming sometime where either Kaiser-Frazer get efficient or they will never get efficient. Is that correct?

General Cook. Yes, sir; that is true.

Senator BYRD. Has that time come yet or not?

General Cook. We expect it to come.

Senator BYRD. I hope it will come someday. That is all that I have Mr. Chairman.

Senator DUFF. We will stand adjourned until 10 o'clock tomorrow morning.

(Whereupon, at 12:03 p. m. the committee adjourned, to reconvene at 10 a. m., June 5, 1953.)

## AIRCRAFT PROCUREMENT

FRIDAY, JUNE 5, 1953

UNITED STATES SENATE,  
PREPAREDNESS SUBCOMMITTEE No. 1,  
ARMED SERVICES COMMITTEE,  
*Washington, D. C.*

The subcommittee met, pursuant to adjournment, at 10:05 a. m., in room 212, Senate Office Building, Washington, D. C., Senator Styles Bridges (chairman), presiding.

Present: Senators Bridges, Flanders, Duff, and Symington.

Also present: Fred Rhodes, chief counsel; James Anton, special counsel, and Harold M. Devlin, accountant.

The CHAIRMAN. The committee will come to order.

At the outset the Chair would like to make an observation which was touched on at our hearings yesterday. For the purpose of emphasis, so that there will be no doubt as to the desire of the committee, these hearings have been slowed up by reluctance to answer questions. There have been all too many statements that information would have to be secured for the record.

I would like to point out that these hearings come as no surprise to the Air Force. Our staff has kept the Air Force informed regarding the matters which this committee desired to pursue. Long conferences have been held, and there has been ample opportunity for the Air Force to prepare.

This investigation has been going on since the fall of 1952, and by June of 1953 there is no excuse for witnesses failing to respond to basic questions which relate to matters of this importance.

Several significant points were brought out in yesterday's testimony. I expect that all of these points will be amplified and developed in the hearings today and next week, but I would like to comment here on two of these points in particular.

General Cook asserted that Kaiser-Frazer was only a beginner in its C-119 contract. He further said that this beginner had already received in excess of \$150 million since December 1950. It occurs to me that, after spending 30 months and \$150 million of Government funds, a company should be doing more than just starting in performing their contract with the Government.

General Cook also made the statement that practically all aircraft schedules are unrealistic. This is an admission which should be of great interest not only to this committee but to all Members of Congress and the taxpayers at large. It is about time that we stopped kidding ourselves and found out the truth about our aircraft program.

We have heard a great deal about the purchase of insurance. I believe in insurance, but I also believe that the American public should not have to pay a greater price for insurance than is necessary

to provide the desired protection. The American taxpayers are becoming more and more aroused to the threat of national bankruptcy. There is a reason to be alarmed when hard-earned tax dollars are spent imprudently and with little or no thought to the impact of careless extravagance on the country's economy.

Senator Byrd expressed my thinking very well yesterday when he said, "I realize that there has to be some latitude, but when it gets to be 4 and 5 times as much, I think it is all out of reason."

There has been some question about the actual figures involved in the C-119 contract at Willow Run and the C-119 contract at Hagerstown. We have with us the resident auditor from Willow Run and the supervisory accountant for the eastern procurement region. Both of these men are Air Force employees and I believe that we will hear from them today.

Following the auditors, the committee will hear from Gen. K. B. Wolfe, former Deputy Chief of Staff, Materiel. General Cook has asked us for permission to make a statement. We will be very glad to hear from you.

**TESTIMONY OF LT. GEN. ORVAL R. COOK, DEPUTY CHIEF OF STAFF, MATERIEL, UNITED STATES AIR FORCE—Resumed**

General Cook. Mr. Chairman, before I make the statement I would like to amplify on my statement that I made yesterday about unrealistic schedules.

I believe that that statement requires clarification. My intention was to emphasize the fact that in the beginning new schedules generally have been found to be unrealistic, not after we have accumulated a certain amount of experience in production by a contractor.

If I may, I would like to read my statement.

The CHAIRMAN. Certainly.

General Cook. Mr. Chairman and members of the committee, before completing my testimony I would ask the privilege of placing this brief statement in the record.

May I assure the committee that the Air Force and myself personally are anxious to present all figures and facts as requested by the committee as soon as possible.

To that end the record of these hearings is being studied and will be studied.

Under conditions as they were and are, I believe it was right for the Air Force to rush the establishment of a second source for the C-119 airplane; and I know that any fairminded person will agree it was only natural for the first planes produced from this new second facility to have cost more than those planes which were coming from the previously established facility.

The margin of that difference, however, is another matter; and one we have been looking into with apprehension and regret.

Our records show that the original estimated contract cost for the C-119 from the Kaiser-Frazer facility was some \$840,000 per plane on a lot of 200 planes. This figure included roughly \$130,000 per plane for tool-amortization cost; and \$250,000 per plane for subcontractor buildup.

It is our understanding now, however, that the current estimated cost by the contractor for each of these planes is over \$1,200,000 with a strong possibility that that figure will be further increased.

The Air Force is disappointed, therefore, in the performance of the Kaizer-Frazer operation.

We have been attempting to hold these costs down to the best of our ability. That has been somewhat difficult because of the constant reprogramming and replanning the Air Force has been forced to undertake during recent years.

In consideration of the cost of this operation I would respectfully request that the performances of the some 2 dozen other airplane facilities now producing for the Air Force be given that consideration by the committee which the committee feels proper.

The Air Force appreciates the interest of this committee in this matter; and we will do our best to keep all production costs to a minimum.

We believe that our airplanes in the future will be purchased at greater value to the taxpayer as a result of the committee's interest.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, General Cook.

We will call Mr. M. F. Mautner to the stand now.

Will you raise your right hand? Do you solemnly swear that the testimony you are to give will be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. MAUTNER. Yes, sir.

**TESTIMONY OF M. F. MAUTNER, SUPERVISORY AUDITOR, EASTERN DISTRICT HEADQUARTERS, AUDITOR GENERAL, USAF**

The CHAIRMAN. Your full name is what?

Mr. MAUTNER. Maximilian F. Mautner.

The CHAIRMAN. You work for the Air Force as supervising auditor?

Mr. MAUTNER. I am a supervisory auditor attached to the eastern district headquarters of the Auditor General, USAF.

The CHAIRMAN. The committee would like to ask you, Mr. Mautner, some questions about the C-119 planes. How many contracts for the production of the C-119 planes have been awarded to Fairchild by the Air Force?

Mr. MAUTNER. Four contracts in all, to date.

The CHAIRMAN. How many C-119 planes were awarded under each contract?

Mr. MAUTNER. Contract W33-038-ac-19200.

Mr. ANTON. Is that C-82 or C-119?

Mr. MAUTNER. C-119. W33-038-ac-19200 called for 412 planes.

Contract AF-33(038)18499 called for 440 planes.

AF-33(600)22285 was a letter contract and I understand that a definitive contract is now in the possession of the contractor but has not yet been signed. That is my last understanding. It called for 146 planes.

Then there was a contract which was to be formed at Park Ridge calling for 165 planes which was terminated in January 1952, without any deliveries.

The CHAIRMAN. Will you explain to the committee the type of contract awards under the original contract 19200 and under the present contract 18499?

Mr. MAUTNER. The two contracts which were definitized were what we call firm fixed-price redeterminable contracts. The first contract, 19200, called for price revision retroactively after the 36



planes had been delivered, and at the same time prospectively for the runout portion of the contract, and other price redeterminations during the course of the performance of the contract at the call of either the Government or the contractor, but such price redetermination would be made prospectively and not retroactively.

The CHAIRMAN. What date did the production under the original 19200 contract begin, and what date was the last plane delivered to the Government?

Mr. MAUTNER. Production on the 19200 began late in 1947. The first delivery was made in April 1949, and the last plane was delivered in November 1952.

Mr. ANTON. How many planes were delivered under that contract?

Mr. MAUTNER. 412.

The CHAIRMAN. What date did production under the present contract 18499 start, and how many planes were completed at the date of the last price redetermination?

Mr. MAUTNER. It is difficult to state just when production started because the two contracts were being produced simultaneously. The first plane was delivered in September 1952. At the time of the price redetermination in March and early April of this year 188 planes had been delivered.

Mr. ANTON. Do you know what the price, the redetermined price for this plane is at the present moment?

Mr. MAUTNER. On the forward quantity?

Mr. ANTON. Yes.

Mr. MAUTNER. The forward quantity was negotiated at a price of—that is the run-out quantity of 252 planes to come, was negotiated at a price to the Government of \$265,067 per plane.

The CHAIRMAN. Mr. Mautner, have you got a schedule which could be put in the record at this time indicating the cost of the technical assistance given to Kaiser-Frazer by Fairchild to April 30, 1953, or the last date that you had, in accordance with the terms of the contract between the Air Force and Fairchild?

Is this it?

Mr. MAUTNER. This is the statement, sir.

The CHAIRMAN. Would you identify it, and if that is the correct statement, we will put it in the record.

Mr. MAUTNER. Yes, sir, it is.

The CHAIRMAN. It may be a part of the record at this point.

## AIRCRAFT PROCUREMENT

119

FAIRCHILD AIRCRAFT DIVISION, FAIRCHILD ENGINE AND AIRPLANE CORP.

*Cost to the Government of parts and other assistance furnished to Kaiser-Frazer  
through Apr. 30, 1953*

	14 ship sets of parts	16 ship sets of parts <sup>1</sup>	Replacement parts	Total
<b>Airplane parts:</b>				
Labor hours.....	180,031	46,095	18,495	244,621
Labor dollars.....	\$266,972	\$76,815	\$30,893	\$374,680
Overhead.....	402,327	112,150	45,104	559,581
Material.....	635,209	185,031	81,878	902,118
Subcontract.....	112,414	106,773	62,294	280,481
Subtotal.....	1,416,922	470,769	220,169	2,116,860
General and administrative expense.....	67,729	18,471	8,625	94,725
Total cost.....	1,484,651	489,240	228,694	2,211,585
Profit.....	148,405	49,824	22,870	221,159
Selling price of parts.....	1,633,116	548,064	251,564	2,432,744
<b>Other assistance:</b>				
Year 1951.....				812,824
Year 1952.....				411,566
January through April 1953.....				51,334
Total other assistance.....				1,275,724
Total assistance to K-F through April 1953.....				3,708,468
<b>Total assistance to K-F by years:</b>				
Year 1951.....				2,445,940
Year 1952.....				1,174,309
January through April 1953.....				88,219
Total assistance to K-F through April 1953.....				3,708,468

<sup>1</sup> 16 ship sets consists of fuselage and center section parts.

## PRIMING PARTS FOR KMC EXCLUSIVE OF PARTS REQUESTED ON CALL CONTRACTS

*Fourteen ship sets*

The 14 ship sets of priming parts included 2 sets of major assemblies and 3 sets of subassemblies. This order started in April of 1951. Approximately 90 percent of the details were taken directly from stock and subassemblies and major assemblies were shipped according to schedule. There were a total of approximately 350,000 pieces shipped and 98 percent of all shipments, including details, had been made by October 1951.

*Sixteen ship sets*

The work on the 16 ship sets was started March of 1952 and approximately 90 percent of these pieces were shipped directly from stock. The total number of pieces shipped was approximately 361,000 and shipments were completed in April 1952.

The CHAIRMAN. Please explain this table to the committee, explaining the amounts for parts furnished Kaiser-Frazer and other assistance given.

Mr. MAUTNER. The amount of the assistance given by the delivery of parts and assemblies totals \$2,432,744. Other assistance rendered was \$1,275,724, making a total of \$3,708,468. I think the other assistance represented technical assistance, engineering services, and so forth.

Mr. ANTON. Under this schedule that you have there, isn't it indicated that there were 14 ship sets parts delivered, and also 16 ship sets parts delivered? Could you explain that those 14 ship sets parts consisted of, and how they were delivered?

Mr. MAUTNER. There were 14 sets of certain parts of assemblies necessary for the production of a complete plane, not the complete sets. There are certain parts and assemblies.

Mr. ANTON. Would you call those major assemblies?

Mr. MAUTNER. I would call those major assemblies, yes.

Mr. ANTON. Those major assemblies were shipped by Fairchild to Kaiser-Frazer so that they became part of the first 14 planes?

Mr. MAUTNER. Yes, sir.

Mr. ANTON. Is it true that Fairchild took those sets right out of its inventory and shipped them to Willow Run?

Mr. MAUTNER. I understand that is where they took them, out of the inventory.

Mr. ANTON. All in all there are 30 ship sets parts.

Mr. MAUTNER. Yes, sir.

Mr. ANTON. Plus many other parts?

Mr. MAUTNER. Yes, replacement parts.

The CHAIRMAN. Mr. Mautner, did you, at the request of the committee, prepare a schedule which can be inserted in the record at this time indicating, (a) the total unit cost for the first 71.4 C-119 planes produced by Fairchild under the original contract No. 19200, and (b) the total and unit cost for the first 159 planes, C-119s, produced under this contract, and (c) the total and unit cost for the 412 C-119 planes produced under this contract?

Mr. MAUTNER. Yes, sir.

(The material is as follows:)

*Fairchild Aircraft Division, Fairchild Engine & Airplane Corp.—Contract W 33-038 ac-19200 cost to the Government of the 1st 71.4, 159, and 412 C-119 airplanes*

	Total, 71.4 airplanes	Total, 159 airplanes	Total, 412 airplanes
<b>Airplane manufacture:</b>			
Labor hours.....	4,233,307.60	7,215,825.60	13,933,648.6
Labor dollars.....	\$5,580,355.14	\$9,752,696.57	\$20,274,371.22
Overhead.....	7,406,445.45	12,642,131.25	28,433,146.67
Material.....	6,845,053.74	15,217,512.49	40,846,251.20
Subcontract.....	327,319.51	779,329.48	4,944,000.76
Flight test.....	491,773.35	762,991.28	1,741,960.41
Subtotal.....	20,650,949.19	39,184,661.07	96,240,630.26
Engineering and experimental.....	2,832,358.68	3,051,317.81	5,983,162.24
Tooling.....	3,861,611.61	4,414,199.40	6,823,601.06
Preproduction.....	72,670.64	72,670.64	72,670.64
Subtotal.....	27,427,690.12	47,322,848.92	109,220,154.20
General and administrative.....	1,793,796.36	2,944,964.17	5,537,668.54
Total cost.....	29,221,386.48	50,167,713.09	114,757,823.04
Profit.....	2,922,138.71	5,004,538.40	10,851,214.51
Selling price.....	32,143,525.19	55,172,251.49	125,609,037.55
Average unit selling price.....	\$450,189	\$346,995	\$304,876
Unit airframe weight, pounds.....	27,207	27,088	28,462
Dollars per airframe pound.....	\$16.55	\$12.40	\$10.71
Average unit production hours.....	59,160	45,383	33,820
Unit airframe weight (less subcontract) pounds.....	23,942	23,700	22,564
Hours per airframe pound (less subcontract).....	2.47	1.91	1.50

The CHAIRMAN. Mr. Mautner, will you explain this schedule to the committee, generally, indicating the total and unit costs, for the 71.4 planes and the 412 planes produced under the contract?

Senator FLANDERS. May I inquire why the decimal?

The CHAIRMAN. That is what I am inquiring about. Will you explain that before we go forward?

Mr. MAUTNER. I understand that the production of Kaiser-Frazer, or the costs of production of Kaiser-Frazer, represent the equivalent of 71.4 planes.

The CHAIRMAN. Do you mean Fairchild or Kaiser-Frazer?

Mr. MAUTNER. Kaiser-Frazer, the production to a certain date represented the equivalent of 71.4 airplanes.

Senator FLANDERS. I don't want to fly that .4 plane.

Mr. ANTON. Is it not true, Mr. Mautner, that by "equivalent planes" that does not mean planes already accepted, or out of the door, but parts in process that would equal 71.4 planes as of April 30 this year? Is that correct?

Mr. MAUTNER. Yes, sir. That is the work performed. What factors were used in arriving at that, I do not know.

The CHAIRMAN. Will you explain, indicating the costs for the 71.4 planes, 159 planes, and 412 planes produced under the Fairchild contract?

Mr. MAUTNER. Yes, sir. The cost to the Government on the first 71.4 airplanes was \$32,143,525, showing an average unit selling price of \$450,189 per plane.

Mr. ANTON. That included all preproduction costs; did it not?

Mr. MAUTNER. On that contract; yes, sir.

Mr. ANTON. It included all tooling; did it not?

Mr. MAUTNER. On that contract. They might have had some tooling from the previous contract. I would not know what they would use on that.

The CHAIRMAN. Now, the 159 planes.

Mr. MAUTNER. The 159 planes showed a total cost to the Government of \$55,172,251 with an average unit selling price of \$346,995.

The CHAIRMAN. And the 412 planes?

Mr. MAUTNER. On the total contract the cost to the Government was \$125,609,037, with an average unit selling price of \$304,876.

The CHAIRMAN. Did you, at the request of the committee, prepare a schedule which can be inserted in the record at this time indicating, (a) the total and unit costs for the first 188 C-119 planes produced under Fairchild, under the present contract 18499, and (b) the redetermined total cost and unit price for the remaining 252 C-119 planes to be produced under this contract, and (c) the total cost and the average unit cost for the total 440 C-119 planes to be produced under this contract?

Is this the schedule?

Mr. MAUTNER. That is the schedule; yes, sir.

FAIRCHILD AIRCRAFT DIVISION, FAIRCHILD ENGINE & AIRPLANE CORP.—CONTRACT AF33(038)-18499, COST TO THE GOVERNMENT OF 440 C-119 AND R4Q AIRPLANES

Prices through change order No. 21 plus revisions negotiated in the 2d redetermination conducted in March 1953

[This contract is a follow-on to contract W33-038-ac19200 which covers the procurement of 412 C-119 and R4Q airplanes]

	Total, 1st 188 airplanes	Total last 252 airplanes <sup>1</sup>	Total, 440 airplanes
Labor hours.....	4,095,396		
Labor dollars.....	\$7,072,265		
Overhead.....	10,619,367		
Material.....	19,110,821		
Subcontract.....	4,302,792		
Flight test.....	653,020		
Subtotal.....	41,758,265		
Engineering and experimental.....	859,205		
Tooling.....	1,085,277		
Subtotal.....	43,702,747		
General and administrative.....	1,729,183		
Total cost.....	45,431,930		
Profit.....	3,644,387		
Selling price.....	49,076,317	\$66,796,861	\$115,873,178
Average unit selling price.....	261,044	265,067	263,348
Average unit airframe weight..... pounds.....	28,554	28,891	28,747
Dollars per airframe-pound.....	\$9.14	\$9.17	\$9.16
Average unit production hours.....	21,784		
Unit airframe weight (less subcontract)..... pounds.....	21,058	20,892	20,963
Hours per airframe-pound.....	1.03		

<sup>1</sup> In accordance with the terms of the contract, the last 252 airplanes were redetermined on Mar. 20, 1953 (60 days prior to the scheduled delivery date of the 189th article). Prices shown are the redetermined prices although an approved supplemental agreement covering these prices had not been executed as of the preparation of this report—Apr. 23, 1953. No detail by elements of cost is available as the redetermined price was negotiated on a package basis and not by elements of cost.

The CHAIRMAN. Will you tell us the cost of the first 188 planes?

Mr. MAUTNER. The cost to the Government was \$49,076,317, showing an average unit selling price of \$261,044.

The CHAIRMAN. Will you tell us the redetermined unit price for the 252 planes to be completed and the date of the last determination?

Mr. MAUTNER. The 252 planes constituting the runout portion of the contract were negotiated at \$66,796,861, with an average unit selling price of \$265,067.

That would make a total for the entire contract of 440 airplanes of \$115,873,178, with an average unit selling price of \$263,348.

The CHAIRMAN. Will you inform the committee the cost to the Government for each Fairchild C-119 plane under the last price redetermination again?

Mr. MAUTNER. That is the runout portion of 18499, which constitutes 252 airplanes, and the price, the redetermined price was \$265,067 per plane.

The CHAIRMAN. Just one other question. In your position as auditor for the Air Force in the eastern district, did you ever receive any complaint that Kaiser-Frazer was not getting cooperation from Fairchild or that Fairchild had been uncooperative in furnishing the know-how to Kaiser-Frazer?

Mr. MAUTNER. Yes, there was some talk of that—and of shipping improper parts. What the outcome of the investigation was, I do not know.

The CHAIRMAN. It was not made to you personally?

Mr. MAUTNER. Not to me personally.

The CHAIRMAN. You did not get any letter or telegram or no one ever came to you personally?

Mr. MAUTNER. No. I officially did not receive any notification.

The CHAIRMAN. Senator Duff, do you have any questions?

Senator DUFF. No question, sir.

The CHAIRMAN. Mr. Rhodes?

Mr. RHODES. No, sir.

The CHAIRMAN. Thank you very much, Mr. Mautner.

We will call now on Mr. Sidney C. Solomon.

Do you solemnly swear that the testimony you are about to give will be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. SOLOMON. I do.

**TESTIMONY OF SIDNEY SOLOMON, RESIDENT AUDITOR, AUDITOR GENERAL, KAISER-FRAZER RESIDENCY**

The CHAIRMAN. Mr. Solomon, what is your full name?

Mr. SOLOMON. Sidney C. Solomon.

The CHAIRMAN. What position do you hold?

Mr. SOLOMON. Resident auditor, auditor general, Kaiser-Frazer residency.

The CHAIRMAN. Are you a certified public accountant?

Mr. SOLOMON. Yes, sir.

The CHAIRMAN. How long have you been working for the Air Force in an accounting capacity?

Mr. SOLOMON. Since 1941.

The CHAIRMAN. Mr. Solomon, will you please inform the committee what the costs per plane will be as estimated by the Willow Run Air Force Audit Section at the request of the Air Force contracting officer under the Kaiser-Frazer C-119 contract and the total amount for the 159 planes?

Mr. SOLOMON. The total expenditures estimated for the 159 planes, by me, are \$212,923,341.

The CHAIRMAN. What would that be per plane?

Mr. SOLOMON. That figure, divided by 159, would equal \$1,339,140 cost to the Government per plane.

The CHAIRMAN. May I point out that one of the purposes of this committee is to bring out whether or not excessive costs have been incurred here in the procurement of these planes.

I point out that the testimony just given us shows that the cost of the C-119 produced by Kaiser-Frazer is \$1,339,140, as contrasted with the same testimony this morning by another auditor of the Air Force for Fairchild of \$265,067.

Do these figures include the cost of the technical-assistance contract between the Air Force and Fairchild amounting to \$3,708,468, as of April 30, 1953?

Mr. SOLOMON. No, sir.

The CHAIRMAN. They do not? So that actually it would be substantially more per plane than the figure you gave us, if those were included?

Mr. SOLOMON. Yes, sir.

The CHAIRMAN. The Air Force's estimate to complete this contract for the 159 C-119 planes is \$212,923,341. For approximately the same figure the Government has received the following from Fairchild: The Fairchild Hagerstown plant building, including machinery and equipment; the design and engineering from the ground up of the first Fairchild cargo plane; 3 experimental cargo planes; 219 C-82 cargo planes, including tooling; 360 C-119 cargo planes, including tooling; a total of 582 cargo planes.

In addition, the Government still owns the Fairchild Hagerstown building, including machinery and equipment.

Will you please put the copy of your estimate into the record so that we may have it?

*Kaiser Manufacturing Corp., Willow Run, Mich.—Total contract costs as estimated by AF accountant—Contract No. AF33(038)-18481*

	Total (159 ships)	Unit amount
Production materials.....	\$14,368,938	\$90,371
Direct labor.....	28,474,992	179,088
Factory burden.....	87,520,498	550,443
Engineering.....	4,695,942	29,534
Administrative.....	9,012,046	56,679
Subcontracts.....	36,187,711	227,596
Production estimated costs, airplanes.....	180,260,097	1,133,711
Special tooling.....	19,353,892	121,723
Plant rearrangement.....	2,400,333	15,096
Portable tools.....	1,793,931	11,283
Subtotal.....	23,548,156	148,102
Contract clause 4 (no fee items).....	3,038,607	12,821
Subtotal.....	206,846,820	1,294,634
Fixed fee.....	7,076,521	44,506
Total estimated costs (excluding spares).....	213,923,341	1,339,140
Spares cost and fixed fee.....	10,070,784	
Total estimated costs to the Air Force.....	223,994,125	

The CHAIRMAN. Mr. Solomon, when was a permanent residency established at Willow Run to administer the audit under the C-119 contract?

Mr. SOLOMON. April 1951.

The CHAIRMAN. When you first set up the Air Force Audit Section under the C-119 contract at Willow Run, did you disagree with the methods being employed by Kaiser-Frazer Manufacturing Corp. with respect to the allocation of costs under the defense contract?

Mr. SOLOMON. Yes; at the initial stages I disagreed with the method of allocation of the preproduction costs.

The CHAIRMAN. Will you please explain to the committee the nature of the disagreement which you had with the methods of allocation being employed by the Kaiser-Frazer Manufacturing Corp.?

Mr. SOLOMON. At the initial stages of the contract the only type costs that ever was extended by Kaiser-Frazer under the contract was overhead in nature.

Naturally there was no production and after review by my office we determined that certain charges were arbitrary and Kaiser-Frazer had not firmed up on a firm method of allocation.

In reviewing it after our initial review, we discussed the matter with top management at Kaiser-Frazer and they concurred in a revised

method wherein certain departments not rendering any service at the earlier stages of the contract——

Mr. ANTON. In other words, is it not true that automotive costs were being charged to the defense contract?

Isn't that what you mean to say?

Mr. SOLOMON. In effect. The only activity in there was automotive. So any allocation, improperly, or that we disagreed with, would naturally be automotive costs.

The CHAIRMAN. What was the amount of these so-called improperly allocated costs for the first quarter of 1951, before you had set up your audit section at Willow Run for the C-119 contract?

Mr. SOLOMON. The difference between the contractor's book costs and the Air Force audit costs under the C-119 program amounted to \$406,000.

The CHAIRMAN. How much was the total dollar amount charged to the C-119 program at Willow Run for the first quarter of 1951?

Mr. SOLOMON. The original book figures amounted to \$1,154,778.

The CHAIRMAN. How much would you say, then, were the improper allocations challenged by you for the first 3 months under the contract for the C-119 airplane at Willow Run? It would amount to what percentage of the dollar value, or dollar amount?

Mr. SOLOMON. \$406,000, or 35 percent of \$1,154,000. Approximately 35 percent.

The CHAIRMAN. Then you had to challenge 35 percent of the total costs as being improperly allocated to the C-119 in the first 3 months of 1951?

Mr. SOLOMON. Yes, Mr. Chairman.

*Kaiser Manufacturing Corp., Willow Run, Mich.—Detail on recorded costs before audit and after audit period: Jan. 1, 1951—Mar. 31, 1951—Contract No. AF33(038)-18481*

	Recorded costs		
	Before audit	After audit	Difference <sup>1</sup>
<b>Supply contract:</b>			
Direct charge overhead.....	\$259,531.01	\$256,215.53	\$3,315.48
Allocated overhead.....	186,754.70	302,023.64	(115,268.94)
Subtotal, overhead.....	446,285.71	558,239.17	(111,953.46)
Direct costs.....	0	183,078.89	(183,078.89)
Subtotal, supply.....	446,285.71	741,318.06	(295,032.35)
<b>Facilities contract:</b>			
Direct charge overhead.....	152,693.00	0	152,693.00
Allocated overhead.....	60,525.29	0	60,525.29
Subtotal, overhead.....	213,218.38	0	213,218.38
Direct costs.....	496,274.32	7,452.73	487,821.59
Subtotal, facilities.....	709,492.70	7,452.73	701,039.97
Total, supply and facilities.....	1,154,778.41	748,770.79	406,007.62

<sup>1</sup> Parentheses denote credit.

NOTE.—Above figures do not include any costs or audit adjustments applicable to the reinstallation of automotive facilities (460,000 work-order series).

The CHAIRMAN. What were the total charges made by the contractor against the C-119 contract at Willow Run as of May 31, 1953?

Mr. SOLOMON. Approximately \$162 million.



*Kaiser Manufacturing Corp., Willow Run, Mich.—total incurred costs and fixed fee as of May 31, 1953—contract AF 33 (038)—18481*

Actual costs incurred as of Apr. 30, 1953 (does not include unaudited liabilities) .....	\$157,272,765.26
Add fixed fee as accrued by contractor .....	5,500,837.00
 Total actual incurred costs and fixed fee as of Apr. 30, 1953 .....	 162,773,602.26
 Estimated costs incurred during May 1953, per contractor .....	 5,389,952.37
Add estimated fixed fee accrual .....	267,866.00
 Total estimated costs and fixed fee for month of May 1953 .....	 5,657,818.37
 Total estimated incurred costs and fixed fee as of May 31, 1953 .....	 168,431,420.63

NOTES.—(1) Above figures do not include provision for unaudited liabilities. The amount of unaudited liabilities as of May 31, 1953 was not available.

(2) Above figures represent all costs incurred under Contract AF 33 (038)—18481, including the spares program and production material purchased but not yet released to the production line.

The CHAIRMAN. Have you by your auditing processes been able to be sure that no automotive costs were improperly allocated to the C-119 contract since you set up the audit residency at Willow Run?

Mr. SOLOMON. Under the selective-audit procedure in effect it is my opinion that no costs not allocable to defense contracts have been reimbursed.

The CHAIRMAN. If you had not set up your auditing procedures and the same percentage of automobile costs had continued to be improperly allocated to the C-119 contract at Willow Run as was done the first 3 months, this would run pretty high, would it not?

Mr. SOLOMON. Yes.

The CHAIRMAN. Under the same proportion, what would it have run?

Mr. SOLOMON. In effect you are asking what is 35 percent of \$162 million? I would say it is approximately \$56 million.

The CHAIRMAN. That is something that the Air Force should be commended for, for sending an auditor to the Willow Run plant and making sure that the taxpayers of the country were not forced to absorb automobile or automotive costs under this. I am delighted that you were on the job, Mr. Solomon.

Mr. SOLOMON. Thank you.

The CHAIRMAN. In addition to the improper allocations that you referred to, have you found any other improper costs being charged to C-119 contracts at Willow Run? If so, will you briefly describe them to the committee?

Mr. SOLOMON. Some, yes; there were additional adjustments during the life of the contract. May I say, sir, that the CPFF contracts, in those contracts we normally do find, with all contractors, adjustments. Did you want a description of some of these?

The CHAIRMAN. Yes, so that the committee will be informed. What else did you find that you considered of an improper nature?

Mr. SOLOMON. There was the question of vacation payments, further explanation of vacation payments adjustments, which would be personnel working in one division earning their vacation in that division and moving into the aircraft area and being paid in the aircraft area and charged to the aircraft.

Inasmuch as their earnings, the vacation was actually earned in the automotive or other areas, the actual payments should have been charged to that phase instead of to defense.

The CHAIRMAN. In other words during the period where they earned the vacation, they were working in the automotive section of Kaiser-Frazer?

Mr. SOLOMON. Yes, sir.

The CHAIRMAN. Then they transferred to the section making C-119's. Then they took the vacation and then there was an attempt to charge the cost of the vacation into the cost of the C-119 airplane when it should have been properly charged to their automotive section which is the period they worked when they got the vacation?

Mr. SOLOMON. Where they earned their vacation.

Mr. ANTON. What is the total amount that was disapproved by you for vacation payments?

Mr. SOLOMON. \$715,631.

*Kaiser Manufacturing Corp., Willow Run, Mich.—Summary of suspended, disapproved, and nonallowable costs, including cost of Edgar Kaiser's open letter published in reply to Senator Styles Bridges—As of Feb. 23, 1953, contract No. AF 33(038)-18481*

Suspended costs:		
Pending proper documentation-----	\$24,544.92	
Pending proper approvals-----	45,775.61	
Total suspended costs-----		\$70,320.53
Disapproved costs concurred in by Kaiser:		
Labor:		
Vacation payments-----	\$715,631.44	
Other labor costs adjustments-----	213,885.95	
		\$929,517.39
Miscellaneous:		
Payroll taxes-----	100,829.63	
Duplicate charges (burden and direct)-----	612,347.90	
Other burden adjustments-----	505,652.99	
Direct charges reaccounted-----	87,161.60	
E. Kaiser's Senator Bridges letter-----	4,864.65	
		1,310,846.77
Total concurred in by Kaiser-----		2,240,364.16
Not concurred in by Kaiser:		
Burden adjustments due to shifting of vacation hours in burden bases-----		350,281.29
Total disapproved costs-----		2,590,645.45
Nonallowable costs (note 1):		
Interest expense-----	\$1,362,267.76	
Dedication of first C-119 airplane-----	61,620.65	
Traveling and entertainment expenses-----	72,533.12	
Miscellaneous expenses-----	132,038.85	
Total nonallowable costs-----		1,628,460.38
Total suspended, disapproved, and nonallowable costs-----		4,289,426.36

Mr. ANTON. Could you explain in this schedule what you mean by a disallowance for payroll taxes? Or rather, a disapproval for payroll taxes?

Mr. SOLOMON. All payroll taxes incidental to any disallowed or adjusted costs had to follow along with the adjusted costs. If we eliminated \$100 of payroll as nonallowable, and if payroll taxes equal 5.3 percent of that, we would remove 5.3 percent or \$5.30 from payroll taxes from aircraft to nonallowable.

Mr. ANTON. In other words, that would be tied in somewhat with the vacation payments when you disallowed certain payroll expenses?

Mr. SOLOMON. Yes, sir.

Mr. ANTON. What about the duplicate charges amounting to \$612,347? What does that consist of?

Mr. SOLOMON. Basically charges that were made indirect charges. Being a CPFF contract, claims are made periodically, weekly, monthly, et cetera, as a direct charge to contract, as well as overhead allocations. In a stream of recordings quite often the charge will be submitted to us for direct reimbursement and also would be found in the overhead allocation. These are charges of this nature.

Mr. ANTON. There is an item in your schedule entitled "Edgar Kaiser's Letter to Senator Bridges." Would you explain to the committee why that was disapproved and what that was all about? And the amount?

Mr. SOLOMON. The amount disapproved is \$4,864.65, and covers Edgar Kaiser's open letter to the newspaper answering Senator Bridges.

The CHAIRMAN. In other words, the letter Edgar Kaiser wrote me protesting because I issued a public statement, he inserted as a public advertisement in newspapers in my State and all over this country, and he attempted to charge in to the cost of the C-119 planes? Is that correct?

Mr. SOLOMON. A portion of it.

The CHAIRMAN. What portion?

Mr. SOLOMON. It would probably be about 65 percent.

The CHAIRMAN. Why do you suppose he decided 65 percent of the attack on me was chargeable to the C-119 planes and 35 percent was not?

Mr. SOLOMON. That was based upon the fact that it went into the overhead pool. At that time our portion of the allocation within that pool was approximately 65 percent.

The CHAIRMAN. It would be rather costly to run airplane contracts with companies, for the Air Force, and the taxpayers, if we had to be charged for letters to Senators who made comments on the costs of producing planes. That is a new wrinkle at least.

Mr. ANTON. In this schedule, Mr. Solomon, there is an item called nonallowable costs. These costs are contract costs, is that right? Are these costs contract costs or are they not?

Mr. SOLOMON. From an accounting standpoint they are contract costs, but not reimbursable.

Mr. ANTON. Listed under these nonallowable costs you have the following items: Interest expense, dedication of first C-119 airplane,

traveling and entertainment expense, and some miscellaneous expenses. As I look at this interest expense, I believe that is interest on RFC loans, the Government mortgage on the building, and on the V-loan. When the contractors sat down to discuss these with you, what was your decision as to the allowability of these costs?

Mr. SOLOMON. That these costs, in my decision, based upon the armed services procurement regulations and equitable distribution, the fact that these costs were not allowable and the contractor agreed—although from an accounting standpoint it was necessary to allocate all costs, allocable costs to all projects—that they would book it as nonallowable and not claim reimbursement.

Mr. ANTON. What is the total amount that you have disapproved or not allowed under this C-119 contract to date?

Mr. SOLOMON. \$4,289,426, which incidentally is over 60 percent of their fee.

Mr. ANTON. Would you tell the committee whether or not the contractor has concurred in these disallowances and disapprovals?

Mr. SOLOMON. Not with all of them.

Mr. ANTON. How much has he not concurred in?

Mr. SOLOMON. \$350,000, approximately.

Mr. ANTON. Out of a total of \$4,289,426, the contractor has not concurred in some \$300,000 worth of disallowances, is that correct?

Mr. SOLOMON. That is right, sir.

Mr. ANTON. Did you prepare at the committee's request a schedule showing the original definitized contract amounts for the C-119 contract, awarded to Kaiser Manufacturing Corp., and itemized subsequent changes in this contract amount which can be inserted in the record at this time?

Mr. SOLOMON. Yes.

Mr. ANTON. Would you identify this as the schedule for insertion in the record.

Mr. SOLOMON. Yes, sir.

Kaiser Manufacturing Corp., Willow Run, Mich.—Estimated costs and fixed fee as of Apr. 30, 1953—Contract AF-33(038)-18481

Dated	Item No. 1, C-119F	Item No. 3, engineering changes	Item No. 4, special tooling	Item No. 5, extraordinary rearrangement and tooling	Other allowable costs	Item No. 6, services allotment	Subtotal estimated cost	Fixed fee	Total
Mar. 7, 1952 June 10, 1952	\$137,675,000.00	\$1,103,063.00	\$17,117,860	\$4,297,020	\$1,604,329		\$172,649,545.00	\$7,787,854.00	\$180,437,399.00
						\$25,000	25,000.00		25,000.00
June 13, 1952	137,675,000.00	1,103,063.00	17,117,860	4,297,020	1,604,329	25,000	172,674,545.00	7,787,854.00	180,462,399.00
							8,288,136.00		8,288,136.00
	137,675,000.00	1,103,063.00	17,117,860	4,297,020	1,604,329	25,000	180,962,681.00	7,787,854.00	188,750,535.00
Aug. 27, 1952	108,114.62	(112,979.78)					(4,865.16)	4,865.16	
	137,784,114.62	990,083.22	17,117,860	4,297,020	1,604,329	25,000	180,987,815.84	7,792,719.16	188,780,535.00
Oct. 1, 1952	411,933.45	(450,470.46)					(38,537.01)	18,537.01	
	138,196,048.07	539,612.76	17,117,860	4,297,020	1,604,329	25,000	180,939,278.83	7,811,256.17	188,750,535.00
Dec. 4, 1952	4,477,951.93		2,946,140	2,295,980			9,720,071.93	(748,402.17)	8,971,669.76
	142,671,000.00	539,612.76	20,064,000	6,593,000	1,604,329	25,000	190,639,350.76	7,062,854.00	197,702,204.76
Feb. 6, 1953	66,849.46	(69,837.69)					(3,008.23)	3,008.23	
	142,737,849.46	489,755.07	20,064,000	6,593,000	1,604,329	25,000	190,656,342.53	7,065,862.23	197,722,204.76
Feb. 18, 1953		1,000,000.00					1,000,000.00		1,000,000.00
	142,737,849.46	1,489,755.07	20,064,000	6,593,000	1,604,329	25,000	191,656,342.53	7,065,862.23	198,722,204.76
Apr. 3, 1953	236,872.38	(247,530.59)					(10,658.21)	10,659.21	
	142,974,720.84	1,242,224.48	20,064,000	6,593,000	1,604,329	25,000	191,645,683.32	7,076,521.44	198,722,204.76

NOTE.—The total contract figure of \$198,722,204.76 differs from the contractor's figure which is \$199,285,655, the difference being the total of change orders 7 and 8, \$112,979.78 and \$430,470.46, respectively, making up the difference of \$543,450.24. The contractor claims change orders 7 and 8 effect supplemental agreement No. 9 even though the agreement was dated after the change orders.

Mr. ANTON. What was the total amount allotted as of the last change order recorded, including spare parts on the contract for 159 C-119 planes to be produced at Willow Run? And the date of that last change order?

Mr. SOLOMON. \$198,722,204.76.

Mr. ANTON. What was the date?

Mr. SOLOMON. April 3, 1953.

Mr. ANTON. Did you prepare for the committee a schedule showing the incurred costs of the C-119 plane being produced by Kaiser Manufacturing Corp. as of April 30, 1953, which can be inserted in the record at this time? Is this the schedule? I would like to have you identify it and please give us the total amounts as incurred on April 30. That is the schedule you prepared, is it not?

Mr. SOLOMON. Yes.

*Kaiser Manufacturing Corp., Willow Run, Mich.—Incurred costs and fixed fee on C-119F airplanes. Period: Dec. 20, 1951–Apr. 30, 1953—Contract No. AF 33(038)–18481*

	Total amount	Unit amount based on 71.4 ships (note G)
Direct labor hours.....	8,400,287	117,777
Direct labor dollars.....	\$17,010,456	\$238,242
Overhead (note A).....	50,950,430	713,591
Material.....	6,742,737	94,436
Total.....	74,703,623	1,046,269
Subcontracting.....	32,991,990	462,073
Engineering and experimental.....	0	0
Tooling (note C).....	13,344,506	186,898
Preproduction (note D).....	21,269,293	297,880
Total.....	34,613,799	484,787
Administrative and home office.....	4,882,001	68,375
Fixed fee (note E).....	3,171,645	44,421
Total cost at KMC to Air Force (note F).....	150,363,058	2,106,925
Fairchild cost under technical assistance agreement (amount supplied by H. M. Devlin).....	3,708,468	51,939
Total cost to Air Force (note H).....	154,071,526	2,157,864

NOTES:

A. Includes fixed costs as follows: Depreciation and amortization, \$916,073.32; taxes and insurance, \$622,041.97; total, \$1,538,115.29.

C. Includes \$1,563,043.49 cost of completed tools purchased for Fairchild Aircraft division, Chicago, Ill.

D. Includes termination costs applicable to terminations of tooling ordered for Fairchild Aircraft division, Chicago, Ill. Total termination costs on Fairchild tooling amounted to \$569,301.06.

E. Fee computation (in accordance with Mr. Devlin's instructions):

Equivalent airplanes 71.4

Total airplanes 159 = 44.906 percent

44.906 percent  $\times$  \$7,062,854 = \$3,171,645.22

Does not include evaluation of portion of additional fee on engineering changes covered by contract change notices No. 10 and No. 12.

F. The total costs and fee of \$150,363,058 shown above does not include the cost of major assemblies, sub-assemblies, and primary parts supplied by Fairchild Aircraft division under a technical assistance agreement. It is estimated that the initial 14 ship sets of components and priming parts reduced the Willow Run on-site task by 4.57 equivalent airplanes, while the additional 16 ship sets of priming parts reduced the Willow Run on-site task by 3.68 equivalent airplanes, or a total of 8.25 equivalent ships for the 30 ship sets of components and priming parts. The evaluation of the equivalent ships supplied by Fairchild is applicable to the equivalent ship completion shown above.

G. The figures of 71.4 for equivalent ships completed does not include an evaluation of the following costs:

(a) Subcontractors' costs representing on-site subassemblies which have not been released to the production line.

(b) Subcontractors' costs representing subassemblies and in-process work still in the subcontractors' plants.

(c) Productive material released to the production line upon which no productive labor had been incurred. With the time limitations imposed it has not been possible for either the contractor or the auditor to evaluate these costs in the computation of equivalent airframes completed.

H. It will be necessary to further consider the effect of qualifications (F) and (G) above on the average units cost to the Government of \$2,157,864.

(Complete schedule appears as appendix A.)

Mr. SOLOMON. The schedule covers total incurred expenditures and fixed fee on C-119 of airplanes from the period December 20, 1951, through April 30, 1953, contract No. AF-33(038)18481. It shows direct labor hours—

Mr. ANTON. It is not necessary to make a detailed explanation. Just give the totals, please.

Mr. SOLOMON. Total cost at KMC Air Force, note F, \$150,363,058. Added to that is Fairchild cost under technical assistance agreement, and the amount supplied by Mr. Devlin, \$3,708,468.

Total cost to the Air Force, with qualification note H, \$154,071,526.

Senator FLANDERS. May I ask a question, Mr. Chairman?

The CHAIRMAN. Certainly, Senator Flanders.

Senator FLANDERS. This computation does include costs of special tooling and nonrecurring expenses so that I presume the Kaiser-Frazer Co. would feel it is unfair to divide that total with its nonrecurring expenses into the current production?

Mr. SOLOMON. That is right; sir.

Senator FLANDERS. Or what has been produced to date.

Mr. SOLOMON. That is right; sir.

Senator FLANDERS. I think we have to keep that in mind in all fairness to a company whose records are not particularly palatable. I would like to ask one other question. Of the machine tools, which is different from this tooling—this tooling is special tooling for the plane itself?

Mr. SOLOMON. Jig fixtures and detailed tooling.

Senator FLANDERS. Dies and things of that sort. There is, in some of the previous testimony we had, mention made of items of machine tools which came, I presume, from a pool in the possession of the Air Force. Are those machine tools now the property of Kaiser-Frazer, or were they rented or what is their status?

Mr. SOLOMON. They are the property of the United States Government.

Senator FLANDERS. They still remain so?

Mr. SOLOMON. Yes, sir.

Senator FLANDERS. Is there any charge made for their use?

Mr. SOLOMON. No, sir.

Senator FLANDERS. So that they have free use of those tools?

Mr. SOLOMON. Under our contract.

Senator FLANDERS. Does the Fairchild Co. similarly have free use of Government-owned machine tools?

Mr. SOLOMON. I would assume so, sir.

Senator FLANDERS. So that in all probability, so far as you know, the two companies are on an even basis as far as that is concerned?

Mr. SOLOMON. On the machine-tool usage.

Mr. ANTON. Mr. Solomon, would you please confine your answers to the questions. I would like to ask you if this is not true: that the schedule indicates 71.4 C-119 planes completed at Willow Run as of April 30?

The CHAIRMAN. By the way, Mr. Solomon, we want you to say anything that you think is pertinent to the situation. Mr. Anton does not mean to shut you off on that. He just means that we are trying to cover as much ground as we can this morning, therefore your answers, saying what you wish, should be as brief as possible.

You may say anything that you wish, but make it pertinent. Is that right, Mr. Anton?

Mr. ANTON. That is exactly what I meant.

Does this mean that of these 71.4 airplanes as of April 30—and we are talking now about equivalent planes, is that right?

Mr. SOLOMON. Yes, sir.

Mr. ANTON. Does this mean that the Air Force has accepted this number?

Mr. SOLOMON. No, sir.

Mr. ANTON. Would you explain that?

Mr. SOLOMON. The equivalent aircraft indicated here covers both completed and inprocess aircraft.

Mr. ANTON. Of these completed and inprocess aircraft amounting to 71.4 planes, how many of these equivalent planes that have been produced have been supplied by Fairchild in equivalent parts?

Mr. SOLOMON. It is estimated that equivalent airframe parts supplied by Fairchild equals approximately 8.25.

Mr. ANTON. That means that with the parts supplied by Fairchild equaling 8 equivalent planes, that as of April 30, for \$154 billion Kaiser-Frazer has actually produced only 63 planes. Is that not correct?

Mr. SOLOMON. 8.25 from 71.4 would equal 63.15. However, the interpretation as to whether 63.15 is produced only at Kaiser-Frazer eliminates, in effect, the subcontractor, treating Fairchild as a subcontractor. We have other subcontractors where we do take into consideration the equivalent airplanes that they are producing. It is open to question.

Mr. ANTON. Did you prepare a schedule for the committee showing incurred costs, the open commitments, and the difference between contract estimated costs and open commitments and a summary of these various dates with respect to the C-119 contract at Willow Run which can be inserted in the record at this time?

Mr. SOLOMON. Yes, sir.

*Kaiser Manufacturing Corp., Willow Run, Mich.—Incurred costs and commitments—  
Planes—Contract AF 33 (038)—18481*

	As of—				
	Jan. 31, 1952	July 31, 1952	Oct. 31, 1952	Feb. 28, 1953	Apr. 30, 1953
Estimated costs per contract—planes.....	\$169,583,126	\$169,608,126	\$169,608,126	\$179,579,796	\$179,579,796
Incurred costs (note).....	42,845,259	86,006,520	108,666,172	136,493,268	150,363,058
Open commitments.....	27,474,479	22,097,499	25,652,936	25,554,342	19,596,179
Total incurred costs and open commitments.....	70,319,738	108,104,019	134,319,108	162,047,610	169,959,237
Difference between contract estimated costs, incurred costs, and open commitments.....	99,263,388	61,504,107	35,289,018	17,532,186	9,620,559

NOTE.—Does not include Fairchild costs incurred under technical assistance agreement.

Mr. ANTON. Would you briefly explain what this schedule is about?

Mr. SOLOMON. At the request of the technical staff of the committee a schedule was prepared as of five different dates—January 31, 1952, July 31, 1952, October 31, 1952, February 28, 1953, and April 30, 1953, indicating thereon the estimated costs per contract for planes alone.



The planes would be all costs other than spares. Also incurred costs to date, open commitments. Also total incurred costs and open commitments, and the difference between the contract estimated costs and incurred costs and open commitments.

Mr. ANTON. Have any shop practices come to your attention under this C-119 contract at Willow Run which could result in excessive costs to the Government?

Mr. SOLOMON. Yes.

Mr. ANTON. At this point the committee has a copy of a report on conditions causing excessive costs, signed by you, and addressed to the Auditor General, United States Air Force, Detroit, Mich.

Would you verify that as the document, with your signature?

Mr. SOLOMON. Yes, sir.

Mr. ANTON. This is dated February 25, 1952.

Senator FLANDERS. May I say that when you asked the question I thought you said "shop practices."

Mr. ANTON. I said s-h-o-p, and not s-h-a-r-p.

Senator FLANDERS. There are differences in pronunciation in different parts of the country. I just wanted to make sure that we understood that it was shop practices.

(The report above referred to follows:)

DEPARTMENT OF THE AIR FORCE,  
COMPTROLLER, AUDITOR GENERAL,  
Willow Run, Mich., February 25, 1952.

Subject: Report on conditions causing excessive cost.

To: Auditor General, USAF, Headquarters, Central District, West Warren and Lonyo Avenues, Detroit 32, Mich.

#### 1. Purpose of report

In accordance with the provisions of AFR 175-6, details as to certain unsatisfactory conditions noted at Kaiser-Frazer Corp., Willow Run, Mich., are submitted. It is believed that the conditions commented upon have resulted and, unless corrected, will continue to result in excessive cost to the Air Force. In the following paragraphs unsatisfactory conditions have been classified as to the cost element which is directly affected.

#### 2. General

The Air Force contracts affected are held by Kaiser Manufacturing Corp., a wholly owned subsidiary of Kaiser-Frazer Corp. Kaiser Manufacturing Corp. has the same officers, directors, and general offices as the parent company but has no physical assets or facilities, and is completely dependent upon the parent company for the organizational structure required for the performance of defense operations. Kaiser-Frazer Corp., as subcontractor to Kaiser Manufacturing Corp., performs all of the necessary manufacturing and administrative services including keeping the required books, records and accounts and the preparation of public voucher reimbursement requests.

As shown by exhibit A, Kaiser-Frazer Corp. is the subcontractor to its wholly owned subsidiary, Kaiser Manufacturing Corp., for the production of C-119F airplanes and a subcontractor to Chase Aircraft Co., Inc., for the production of C-123 airplanes. Kaiser-Frazer Corp. owns 49 percent of the common stock of Chase Aircraft Co., Inc., which is believed to constitute the largest single holding. Kaiser Manufacturing Corp. is also a major subcontractor to Boeing Aircraft Co. and a prime contractor to the Navy for work to be performed at the Richmond (Calif.) Machining Division. By agreement Kaiser-Frazer Corp. will provide the facilities, personnel, and organization necessary to perform the work.

The comments and conditions outlined in successive paragraphs are restricted to operations at Willow Run, Mich.

### 3. Labor

(a) *Idle time of hourly rated aircraft employees.*—Plant tours and floor checks by members of the Auditor General's resident office have disclosed that aircraft employees are being paid for idle and nonproductive time as summarized below:

Period of test	Work description of employees tested	Shift tested	Number of employees tested	Percent of idle employees (estimated)
Jan. 28 to Feb. 1, 1952....	Selected direct labor crews in aircraft area.	Day.....	687	60.1
Feb. 15, 1952.....	Direct production workers in aircraft area.	Afternoon.	966	43.5

Additional tests of selected labor crews have disclosed that the rate of idleness ranges from 30 to 80 percent of the total crew assigned.

At the present time the average straight time hourly rate for aircraft workers is approximately \$1.99 per hour excluding fringe benefits approximating \$0.15 per hour. It has been estimated that since the inception of aircraft production, labor charges by hourly rated employees applicable to Air Force contracts approximate \$10 million.

Since general plant overhead is allocated to the contracts on a labor-hour basis, the existence of idle time by aircraft workers results in the allocation of additional overhead to Air Force contracts. The general plant overhead rate based upon the most current data available approximated \$1.69 per aircraft labor hour.

On January 21, 1952, the resident auditor advised the AF plant representative of the existence of idle time (exhibit B). On the same day the AF plant representative advised the contractor's executive vice president and general manager of the conditions disclosed by the resident auditor (exhibit C). No formal reply had been received to date. The subject of idle time was discussed by the AF plant representative with the resident auditor on February 1, 1952.

Some effort has been made by the contractor to reduce the number of aircraft employees as shown by the following summary:

Date	Number of employees					
	Aircraft				Employees common to aircraft and automotive operations <sup>1</sup>	Total plant
	Hourly		Salary	Together		
	Direct	Indirect				
Dec. 7, 1951.....	1,847	795	596	3,238	6,516	12,915
Feb. 1, 1952.....	2,805	827	835	4,467	7,538	15,969
Feb. 11, 1952.....	2,490	806	874	4,170	7,701	15,666
Feb. 15, 1952.....	1,975	701	900	3,576	7,800	15,191

<sup>1</sup> Includes employees whose time may be charged directly to Air Force contracts, directly to automotive operations, or allocated to aircraft and automotive operations on a labor-hour basis.

It will be noted that the number of aircraft employees has been reduced approximately 20 percent since February 1, 1952 (the date of the meeting of the resident auditor and the AF plant representative), at which time the contractor reached the highest level of aircraft employment. Despite the indicated reduction, a floor check conducted on February 19, 1952, in 2 aircraft departments revealed that approximately 52 percent of the employees were idle. One foreman stated that he had been advised by his supervisor to send unassigned employees to school. The statement was also made that some of the employees had previously attend the school and did not desire to retake the course.

(b) *Manual adjustment of clock cards.*—A payroll audit conducted by the resident office staff of the clock cards for aircraft workers for the weeks ended June 10 and June 24, 1951, disclosed that approximately 63 percent of the clock cards

examined required manual recordings by the foreman due to failure of employees to punch "in" or "out." Certain of the clock cards involved have been reproduced and are included as exhibit D. As part of the payroll audit it was noted that several time clocks had been tampered with to permit leaving in advance of the scheduled departure time.

Unfavorable conditions noted were referred to the AF plant representative on July 2, 1951 (exhibit E). The action taken by the AF plant representative and the contractor is indicated in exhibit F.

A subsequent review of clock cards for the week ended January 13, 1952, revealed that approximately 16 percent of the 12,381 clock cards examined required manual adjustment to determine pay hours. The following is a brief summary of the reasons advanced and the hours involved:

Reason	Clock cards	Hours
Failure to ring clock cards.....	644	5,458
New hires and rebires not "clocking" in.....	505	4,012
Sick leave approved.....	371	2,895
Out of plant on company business.....	50	1,733
Absent time and overtime approved as "ring failures" for union representatives.....	25	901
Other.....	390	1,535
Total.....	1,985	16,534

The existence of a substantial proportion of manual adjustments was disclosed in a letter from the resident auditor to the vice president and controller dated January 18, 1952 (exhibit G). The subcontractor's reply is included as exhibit H.

(c) *Supervisory employees in allocable departments charging time directly to Air Force contracts.*—The subcontractor's time and payroll manual states that supervisory and staff employees shall charge their time to an expense account the total of which is allocated to defense and automotive operations on a labor hour basis. Despite the instructions issued and the work undertaken by the subcontractor to review the time charges from salary payrolls for the period January through August 1951, 26 of 33 supervisory and staff employees in one department reviewed on February 4, 1952, had continued to charge time directly to Air Force contracts and/or automotive operations. As a result of the test made on February 4, 1952, the subcontractor has agreed to review all salary payrolls for the period January 1951 through January 1952.

#### 4. Tooling

(a) *Rework of defective or unusable tools.*—The design and tool fabrication cost incident to the production of the C-119-F airplane is estimated to exceed \$15 million. Designing and tooling will, for the most part, be purchased from outside vendors. Of this amount, approximately \$9,670,000, had been recorded up to January 31, 1952.

A preliminary survey of selected tools by a representative of Air Materiel Command indicated that approximately 95 percent of the tools received would require some reworking. The principal reason cited by Kaiser-Frazer Corp. for the amount of rework is the failure of Fairchild Aircraft Division of Fairchild Engine & Airplane Corp. to furnish complete information and adequate technical assistance as part of the mobilization (Omaha) plan and under the technical assistance agreement.

To February 19, 1952, the indicated rework costs evidenced by purchase orders issued by Kaiser Manufacturing Corp. are as follows:

	Number of purchase orders	Amount
Approved by contracting officer.....	3	\$150,000
Presented by KMC but not yet approved.....	2	100,000
Total.....	5	250,000

The amount shown should be considered as a minimum since it may be increased by subsequent purchase order changes. It is believed that the total amount of rework costs to be paid outside vendors may exceed \$1 million.

The amount of \$250,000 does not include the cost of material and labor expended by Kaiser-Frazer Corp. in reworking the tools or the cost of the engineering review necessary to determine the nature and extent of the work which must be done. The amount of such costs incurred cannot be readily ascertained since rework costs are not segregated in the detail cost records.

The failure of the subcontractor to establish an adequate system to permit identification and segregation of rework costs incurred as a result of faulty workmanship was reported in joint audit survey No. 11 dated December 18, 1951, and by a letter from the resident auditor to the AF plant representative dated February 4, 1952 (exhibit I). The joint audit survey was signed by the subcontractor's director of accounting systems and auditing and a member of the Auditor General's resident office staff. The AF plant representative transmitted the information contained in the letter dated February 4, 1952, to the subcontractor on February 5, 1952 (exhibit J). On February 7, 1952, the subcontractor's vice president-manufacturing replied (exhibit K) to the AF plant representative indicating that a procedure was in process of formulation—some months after the tools had been received.

(b) *Duplicate tool design and fabrication.*—In an effort to expedite the production program, it is known that duplicate orders were placed for tool design as well as tool fabrication. The amount involved is not definitely known but is believed to exceed \$400,000. The existence of duplicate tool fabrication was acknowledged by a representative of the contractor in a letter dated February 8, 1952, to the contracting officer (exhibit L).

##### 5. Material

*Obsolescence of production parts.*—An indication of the extent of obsolescence of parts may be gained from the following summary:

Purchased parts.....	800
Parts fabricated by subcontractor (Kaiser-Frazer Corp.).....	1,000
Total.....	1,800
Less parts reinstated.....	100
Total.....	1,700

The cost of the parts cannot be readily ascertained since complete information is not available from the subcontractor's records.

The obsolescence loss does not include the cost of minor changes to certain parts or the engineering, purchasing, accounting, and clerical cost involved in processing approximately 5,000 design changes or the possible tooling termination costs resulting from such changes. Since January 1, 1952, over 250 engineering changes have been received which affect the first airplane which was originally scheduled for completion in September 1951.

The existence of obsolescence was brought to the attention of the subcontractor in joint audit survey No. 1 dated September 18, 1951 (exhibit M) which was signed by the subcontractor's director of accounting systems and auditing and a member of the Auditor General's resident office staff. A reply to the condition indicated has not yet been received.

It appears that the major portion of the loss due to obsolescence can be attributed to the following factors:

- Incomplete and outdated information in the mobilization (Omaha) plan bill of materials.
- Lack of effective cooperation and assistance from the design agent (Fairchild Aircraft Division) under the technical assistance agreement.
- Placing of purchase orders in advance of ascertaining the effect of engineering changes.

##### 6. General

(a) *Possible additional cost of the Air Force resulting from 90 percent guarantee of 5 percent V-loan of \$25 million obtained by Kaiser Manufacturing Corp.*—Kaiser-Frazer Corp. has, by the terms of their agreement with Kaiser Manufacturing Corp., undertaken the subcontract operations "on a no profit or loss basis" (article V). In the event that disallowed costs exceeded the fee, which approxi-

mates \$8 million for the C-119, earned by Kaiser Manufacturing Corp., a possibility might arise wherein the Air Force would be asked to absorb the net loss. At February 19, 1952, Kaiser Manufacturing Corp. had borrowed \$23 million. The annual interest on the amount borrowed will exceed \$1 million.

(b) *Arbitrary and unsupported changes of account distribution on basic accounting documents.*—In the examination of material requisitions, foreman's crew (time) sheets and vendor's invoices, numerous instances have been noted wherein the original account distribution indicating a charge to automotive or allocable expense accounts had been changed to indicate a charge to allocable expense or direct aircraft accounts. No working papers or explanations were available to support the change.

(c) *Compensation to union representatives.*—In the union agreement the subcontractor has agreed to employ nonworking union representatives in such capacities as shop stewards, regional stewards, union officers and members of the bargaining committee. The total wages paid to such employees for the year 1951 exceeded \$600,000 of which approximately 50 percent would be allocated to Air Force contracts.

It was noted that the earnings of one union representative for the year 1951, were slightly less than \$18,000. One of the factors which makes possible this high level of earnings is the terms of the union contract which states that the union representative is entitled to overtime pay if the employees he represents work overtime and he is not given the opportunity to elect to work overtime. In the weeks tested by a member of the Auditor General's resident office staff this election was not presented the union representative who was accordingly paid overtime to the extent worked by the employees under his jurisdiction.

The union contract also provides for plant-wide seniority. In the event of any reduction in force at least two undesirable conditions can result:

(1) A foreman will revert to worker status with union privileges. This condition tends to reduce the effective supervision exercised by the foreman.

(2) A redistribution of jobs is necessitated resulting in increased cost due to operational ineffectiveness arising from shifting, training, and relocating the remaining employees.

7. This report is submitted with the object of effecting corrective action upon unsatisfactory conditions which result in excessive costs to the Air Force.

SIDNEY C. SOLOMON,  
Resident Auditor, USAF.

EXHIBIT A  
Kaiser Manufacturing Corp., Kaiser-Frazer Corp.—Summary of contracts<sup>1</sup>

Date of contract	Letter contract number	Type	Total estimated cost	Prime contractor	Subcontractor	Description
Dec. 20, 1950	A.F. 33 (088) 18481	CPFF	\$190,000,000	Kaiser Manufacturing Corp.	Kaiser-Frazer Corp.	Production of 200 C-119 F airplanes plus spare parts.
Dec. 12, 1950	A.F. 33 (088) 18485	CR	12,450,000	do.	do.	Facilities for C-119 F airplanes.
May 12, 1951	A.F. 33 (088) 22446	CPFF	300,000,000	Chase Aircraft Co., Inc.	do.	Production of 173 C-123 airplanes plus spare parts.
Oct. 8, 1951	A.F. 33 (600) 6188	CR	1,500,000	Kaiser-Frazer Corp.	do.	Facilities for C-123 airplanes.
	Total		503,950,000			

<sup>1</sup> Applicable to Willow Run operations only. The Detroit engine division of Kaiser Manufacturing Corp. has contracts approximating \$74,000,000 of which \$14,000,000 (approximately) is of a cost reimbursement nature.

Mr. ANTON. In this report you reported that it is believed that conditions commented upon have resulted, and unless corrected will continue to result, in excessive cost to the Air Force.

This report is dated February 25, 1952, more than a year ago. I would like to have you explain first of all under this item of labor what you mean by "idle time of hourly rated employees," and approximately what the percentage of idle time was at that time.

Mr. SOLOMON. May I see that?

The interpretation of "idle time" is employees apparently not working.

Mr. ANTON. What was the percentage that you determined?

Mr. SOLOMON. For the period January 28 to February 1, based on selective test, 60.1. On February 15, 43.5.

Senator FLANDERS. Mr. Chairman I would like to ask a question at this point.

The CHAIRMAN. Senator Flanders.

Senator FLANDERS. I want to ask it in all fairness to the Kaiser-Frazer Corp. I would like to ask if in Mr. Solomon's judgment, when you were shifting from a product and making as radical a shift as is that from automobiles to airplanes, whether a considerable amount of idle time might not be excused.

Mr. SOLOMON. It is normally to be expected.

Senator FLANDERS. Particularly in view of the necessity for holding a force together. You cannot throw the men out on the street during that time and expect to rehire them.

So that I would think that the percentage of idle time might reasonably be expected to be fairly high.

Mr. SOLOMON. That is right. Whether it is far too high is not the question.

It is just a question of degree, sir. That was our interpretation.

Mr. ANTON. Reading from the record, would you indicate if this is correct:

On the 21st of January, according to your report, you brought this to the attention of the contracting officer. On the same day he brought the matter to the attention of the Kaiser-Frazer officials. This report was written as of February 25, which is more than a month later. You indicated in the report that no reply has been received to date from the management.

Is that correct?

Mr. SOLOMON. As of that date.

Mr. ANTON. Under another item you have manual adjustment of clock cards. What does that mean?

Mr. SOLOMON. Any adjustment necessitated by a failure to actually ring the clock at the clock station, or failure of the clock.

Mr. ANTON. Did you find anything wrong in the manner in which employees were punching time in and out at this plant?

Mr. SOLOMON. At that stage, yes, sir.

Mr. ANTON. Just what did you find? Were there employees who were punching cards for other employees, for example?

Mr. SOLOMON. Yes, sir.

Mr. ANTON. Were there employees who were not present—

The CHAIRMAN. When you say there were other employees punching cards for other people, you meant that that was falsifying records so that people who were not present would be getting paid? Is that right?

Is that what you inferred?

Mr. SOLOMON. That is a possibility, sir. It could be that, Willow Run being a large plant and parking at various places, that one individual would ring out a group of them at the clock station and the other ones would go out, being closer to their cars, and leave earlier so they would not have to wait to ring out.

The CHAIRMAN. In other cases it could be somebody who was being paid for not being there and falsifying, or it could be just cutting corners, which would not be as serious an offense.

Mr. SOLOMON. Yes, sir.

Mr. ANTON. Would you identify these exhibits showing that the cards were being manually taken care of, rather than being punched out, for the record?

Mr. SOLOMON. Yes, sir.



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## AIRCRAFT PROCUREMENT

1. NAME (LAST, FIRST, MIDDLE)  
 2. SOCIAL SECURITY NUMBER  
 3. DATE OF BIRTH (MM/DD/YYYY)  
 4. HOME ADDRESS (STREET, CITY, STATE, ZIP)  
 5. PHONE NUMBER (AREA CODE, NUMBER)  
 6. EMPLOYER'S ADDRESS (STREET, CITY, STATE, ZIP)  
 7. EMPLOYER'S PHONE NUMBER (AREA CODE, NUMBER)  
 8. DATE OF HIRE  
 9. POSITION  
 10. RATE  
 11. TOTAL HOURS PAID  
 12. COMPTON  
 13. TIME CARDS ARE PAY CARDS  
 14. LOSS OR DAMAGE WILL PREVENT  
 15. YOU FROM RECEIVING YOUR PAY  
 16. CHECK ON TIME  
 17. PAYROLL DEPT

Approved For Release 2003/10/10 : CIA-RDP64B00346R000400050003-4

1

SE STA 5 EMPLOYER NUMBER 27476

81

J CORTE

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12/30	7:30	12:50			8	
12/31	7:30	12:50			8	

TOTAL HOURS PAID 48 8

COMPT BY

THE CARDS ARE PAY CARDS  
 LOSS OR DAMAGE WILL PREVENT  
 YOU FROM RECEIVING YOUR PAY-  
 CHECK ON TIME

PAYROLL DEPT

KAISER-FRAZER CORPORATION, WILLOW RUN, MICHIGAN

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1

CL STA

5

EMPLOYEE NUMBER

12400

EMPLOYEE NAME

J. CORTE

DEPT

47-10

IN	OUT	IN	OUT	BASIC	O.T.
8:37 AM				8	
2:31 PM			2:54 PM	8	
1:30 PM			12:08 PM	8	
7:30 AM			5:48 PM	6.9	
9:31 AM				8	
5:59 PM					
TOTAL HOURS PAID				38.9	

TIME CARDS ARE PAY CARDS.

LOSS OF DAMAGE WILL PREVENT

YOU FROM RECEIVING YOUR PAY.

CHECK ON TIME

PAYROLL DEPT

Senator FLANDERS. I want to compliment the chairman and Mr. Anton on that phrase, manual adjustment of clock cards. It is a beauty.

Mr. ANTON. There is just one other item in this report I would like to bring out. It is a very lengthy report. We could go on for a long time. What about this item of duplicate tool design and fabrication? Does that mean that they were purchasing duplicate tools or fabricating tools in duplicate sets? Just exactly what was that that you discovered?

Mr. SOLOMON. There was a possibility that tools were being duplicated.

Mr. ANTON. Were they or were they not?

Mr. SOLOMON. The matter is still under review inasmuch as there are 20,000 to 30,000 tools. Until the tooling department is complete and we can get an overall run on it, we cannot arrive at a final determination. It is evident that a certain amount of duplication has occurred.

Mr. ANTON. It is evident that a certain amount of duplication has occurred. What is the amount of that, approximately, that you believe to be a correct figure?

Mr. SOLOMON. At that time my estimate was approximately \$400,000, as I recall it. But, gentlemen, it is strictly an estimate. I have no factual information to support it until our review is complete.

Mr. ANTON. In other words, you are reviewing the matter now but the estimate that you arrived at is some \$400,000?

Mr. SOLOMON. Yes, sir.

Mr. ANTON. It could go higher, could it not?

Mr. SOLOMON. Yes, sir.

Mr. ANTON. You have another item here which is about supervisory employees in allocable departments charging time directly to Air Force contracts. Would you explain that, please?

Mr. SOLOMON. Based upon the agreed method of distribution of payrolls, agreed between the Air Force and Kaiser-Frazer, certain individuals in a supervisory capacity were not complying with that procedure or making direct charges to the Air Force contracts instead of to the allocable pools. The contractor corrected the situation as it was brought to his attention.

Mr. ANTON. There is another item that you refer to here entitled "Obsolescence of Production Parts." What does that mean?

Mr. SOLOMON. Due to engineering changes a considerable amount of parts would be obsolete. It was evident at that time that a certain group of parts were obsolete, that had been procured. Whether the obsolescence occurred because of the engineering changes or not was not a matter within the scope of the Auditor General and it was brought to the attention of the procurement people to investigate.

Mr. ANTON. The last item that you discuss in your report is possible additional cost to the Air Force resulting from 90 percent guaranty of a 5 percent V-loan in the amount of \$25 million obtained by Kaiser Manufacturing Corp. I am wondering about how that could come about. Would you explain that?

Mr. SOLOMON. Through nonallowable and disapproved costs, resting within the Kaiser Manufacturing Corp. books, when the total amount of disallowed and nonallowable costs exceeded the amount of

the fee there would be a loss, and the capitalization at that time was only \$250,000 of the Kaiser Manufacturing Corp.

Mr. ANTON. The capitalization was \$250,000 at that time, is that not correct?

Mr. SOLOMON. Yes, sir.

Mr. ANTON. There was a possibility that the disallowed nonallowable costs could exceed the fee which is roughly some \$7,000,000. In the event that it exceeded the fee then would the Government have been liable for the excess, or could the contractor have requested that the Government pay the excess?

Mr. SOLOMON. I doubt whether the contractor could. It is a legal matter but I doubt whether the contractor could have requested the Government. But in case of bankruptcy the Government had guaranteed the loan. The Air Force had guaranteed the loan.

Mr. ANTON. So, therefore, with this \$25,000,000 loan which the Air Force had guaranteed up to 90 percent, at this point the Government stood to lose still probably another \$18 or \$20 million, depending upon how much of the V-loan had been used; is that not correct, had bankruptcy occurred?

Mr. SOLOMON. That is a possibility. However, procurement people immediately insisted upon additional capitalization to safeguard that.

Mr. ANTON. Upon receiving this report from you is that what they did?

Mr. SOLOMON. I do not know whether it was upon receiving this report or not, but subsequent to the period of the issuance of the report procurement did insist on additional capitalization.

Mr. ANTON. Do you know what the amount of this capitalization requested by the Air Force is? Do you know what the amount of it was?

Mr. SOLOMON. It is my understanding it was an additional \$5 million going into the Kaiser Manufacturing Corp.

Mr. ANTON. Is it not true it was to be supplied by March 31 of this year?

Mr. SOLOMON. The details I am not familiar with.

Mr. ANTON. Do you know whether or not it was prior to the Willys' so-called deal?

Mr. SOLOMON. The additional capitalization? I think so.

Mr. ANTON. In other words, it had not been supplied prior to the consummation of the Willys-Overland-----

Mr. SOLOMON. It had been supplied in part.

Mr. ANTON. In part?

Mr. SOLOMON. Yes, sir.

Mr. ANTON. The committee also has another report that you submitted to the Auditor General, and this report has to do with utilization of manpower. Would you please identify this for insertion in the record.

(The report is as follows:)

DECEMBER 5, 1952.

From: AFAUDMC-ID-KW  
Subject: Utilization of manpower.  
To: CERKC.

1. Reference is made to a previous discussion in your office on October 13, 1952, on the subject of a proposed adjustment to reimbursable cost for idle manpower, and to a subsequent conference with the contractor's representatives, Mr. John Hallet and Mr. C. M. Hollis, attended by Lt. Col. R. C. Ulrey, Capt. H. A.



Chance, and myself at which information relative to the proposed adjustment was verbally submitted to the contractor. On the following day, October 14, 1952, Capt. H. A. Chance verbally requested from this office a summary of this information, by month, for the use of the contractor. The information was supplied by this office, by phone. Attached to this letter is a summary schedule of this information, by month, for the 10-month period through September 1952, for your record.

2. This office requests written notification of the action contemplated by the contracting officer on this subject.  
For the Auditor General:

SIDNEY C. SOLOMON,  
Resident Auditor, USAF.

*Schedule of adjustment for idle time—Dec. 1, 1951–Sept. 30, 1952*

Month	Adjustment	
	Idle hours	Amount at \$1.95
December 1951.....	123,874	\$242,793
January 1952.....	197,580	387,257
February 1952.....	166,979	327,279
March 1952.....	129,274	253,377
April 1952.....	113,568	222,593
May 1952.....	101,511	198,962
June 1952.....	130,724	256,219
July 1952.....	145,899	285,962
August 1952.....	150,991	295,942
September 1952.....	160,143	313,850
Total.....	1,420,543	2,784,264

Utilization of Manpower  
AFAUDMC-ID-KW CERKC

DECEMBER 29, 1952.

1. This is in reply to your R and R dated December 5, 1952, subject as above, wherein you requested the written notification of the action contemplated by the contracting officer on this subject.

2. At the present time the undersigned contracting officer is withholding payment to the contractor in excess of \$1 million which represents costs incurred in performance of contract AF 33(038)-18481, for direct and indirect labor. This money is withheld pending submission of a written report from the contractor requested in a meeting of December 2, 1952, wherein the Kaiser-Frazer Corp. was requested to establish an idle time account and submit in written form what action they had taken to relieve the idle manpower situation and what action was contemplated by that company to further correct the existing idle time situation as it now appears. Upon receipt of that letter the contracting officer will review the action made by the contractor and at that time it will be decided whether or not an attempt will be made to withhold funds which might be caused by apparent excess idle time.

HARRY A. CHANCE,  
Captain, USAF, Contracting Officer.

KAISER MANUFACTURING CORP.,  
Willow Run, Mich., December 31, 1952.

Subject: Utilization of manpower.

To: Air Force Plant Representative, Central Air Procurement District, Kaiser Manufacturing Corp., Willow Run, Mich. (Attention: CERKC).

Reference: Meeting of November 26, 1952, representatives of United States Air Force and Kaiser-Frazer Corp.

At the above-referenced meeting which was attended by Air Force and Kaiser-Frazer representatives and by Mr. McEachren, of Touche, Niven, Bailey & Smart, you requested Kaiser-Frazer to do two things as follows:

(a) Submit a report covering the subject, "What has been done to reduce apparent idle time?"

(b) Establish in the chart of accounts an idle-time account.

With respect to the first of the above requests, please be advised that Kaiser-Frazer has taken the following important steps to reduce the amount of non-productive time:

(a) Reduced substantially and selectively the number of personnel employed at Willow Run.

(b) Restricted the hiring program to certain relatively scarce skills.

(c) Determined by analysis that a substantial percentage of the production difficulties can be traced to factors affecting the flow of operations and work through division No. 200, machining and fabricating division.

(d) Set up detailed procedures to expedite the finalizing of engineering data, especially as regards changes.

(e) Lent every assistance to subcontractors to insure earliest possible delivery of acceptable components and repair of defective components (wing panels, booms, and so forth).

(f) Taken necessary steps to eliminate bottlenecks noticed by themselves or called to their attention by Air Force personnel.

(g) Selected a production advisory group from their most qualified and experienced personnel. The group is devoting a substantial portion of their time to difficulties manifested in division No. 200. They are to foresee and forestall problems which otherwise would develop in division No. 200, and/or in other divisions.

The group is comprised of the following:

T. F. Riddle, plant manager

O. E. Johnson, manager, production planning

C. B. Bjornson, temporarily assigned from K-F Richmond machining division

J. B. Eley, manager, production control

C. W. Snowden, director of quality

A. V. Fant, chief tooling engineer

R. Sturdevant, Superintendent, machining and fabricating

(h) Made arrangements for Mr. Dean Hammond, who is eminently qualified by education, background, and experience, to work with and analyze the activities of the group.

(j) Made every effort to expedite the completion of all tooling, and where indicated by recent developments, to rearrange and/or modify existing tooling.

(k) Instituted on-the-job as well as formalized training procedures.

(l) Taken every step possible to expedite FAD's compliance with the technical assistance agreement.

(m) Expanded their material and tool expediting program. It is believed that each of the above is a step in the right direction. It is anticipated that the end result of the several coordinated actions will be a steady flow of production in conformance with our current schedule.

Keeping in mind that manpower utilization in any industry is affected by any dislocation that impedes or interrupts the orderly flow of those ingredients essential to that industry, it obviously follows that the effective application of each phase of the steps enumerated above dictates the use of considerate judgment and entails the prudent exercise of managerial ability. The essential ingredients include such items as materials, components, tooling, technical data, experienced manpower, firm schedules, and a multitude of other items.

Obviously, improper timing or too great pressure exerted in connection with any particular manufacturing phase or in connection with any of the related factors could cause serious dislocations or interruptions involving other phases or factors. Similarly, the use of incorrect methods or the encompassing of too broad or too narrow a scope in connection with any step could result in corresponding dislocations or interruptions. Furthermore, every action must be taken to reduce indirect or overhead costs in addition to reducing direct labor costs.

In connection with your request that Kaiser-Frazer establish an idle time account, it is believed that the following observations are apropos and should be considered:

(a) The use of the idle time account is not common to the automotive industry.

(b) Kaiser-Frazer has not heretofore used an idle time account in their aircraft or automotive operations.

(c) The establishment of an idle time account necessarily introduces certain problems not heretofore encountered in Kaiser-Frazer's aircraft operation.



These difficulties would, of necessity, require expanded personnel in the time-keeping and accounting departments. Regardless, the maintenance of such an account could not but fail to produce the desired results. No two people could be expected to concur on the definition of idle time. Further, it is believed that eventually the account would end up as a dumping ground for considerable amounts of time which rightly should be assigned to operation accounts.

(d) The consensus of those public auditors whom we have contacted is that the establishment of an idle time account is contrary to good accounting procedures.

(e) It would be difficult if not impossible to distinguish between true idle time and necessary nonproductive time resulting from temporary interruptions or dislocations in the orderly flow of essential work through the various departments.

(f) Numerous other reasons which possibly might not be of such importance as the above are considered as definite indications that the establishment of the requested account would not be a prudent step to take.

Because of the above, it is requested that you reconsider and withdraw your second request.

We trust that this letter satisfactorily disposes of your two requests.

Yours very truly,

KAISER MANUFACTURING CORP.,  
JOHN HALLETT,  
*Executive Vice President.*

KAISER MANUFACTURING CORP.,  
*Willow Run, Mich., January 12, 1953.*

Subject: Manpower utilization.

To: AF Plant Representative, Central Air Procurement District, Kaiser Manufacturing Corp., Willow Run, Mich. (Attn: CERKC)

Reference: KMC letter dated Dec. 31, 1952, same subject.

Pursuant specifically to your verbal request for additional information concerning steps (a) and (b) of the referenced letter, we herewith offer the requested information.

Please find attached a graph showing comparatively actual versus projected manpower usage from the early stages of the C-119 program through the start of the C-123 program and into January 1953. It is to be noted that in general, certain factors have resulted in actual manpower usage considerably below that which had been projected. The above is but one evidence of K-F's having followed a prudent hiring program restricted to certain relatively scarce skills as one means of avoiding and eliminating nonproductive time among their employees. Further, the same factors that dictated the need for following the restricted hiring program at times so acutely affected operations that it became necessary to effect substantial manpower reductions.

In considering the attached graph, your attention is directed to the three phases of the program shown thereon.

Phase A. June 1951 to January 1952.

Phase B. January 1952 to October 1952.

Phase C. October 1952 to January 1953.

It should be remembered that each of the phases was affected by certain factors; some of which manifested themselves throughout one or more of the phases while others made themselves felt only within a certain phase.

The factors which resulted in having to maintain actual manpower approximately 2,600 employees below the earliest projection during phase A were as follows:

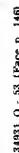
A-1. During the period January 8 through February 6, 1951, the program was effectively strikebound; first by a strike at FAD (January 8 to January 27) followed by a series of wildcat stoppages which resulted finally in an authorized CIO strike at Willow Run (January 22 to February 6). Although the strike-bound period ostensibly lasted only a month, its effects manifested themselves over a considerably longer period.

A-2. Tool design and engineering data scheduled to be delivered to K-F on or before April 1, 1951, was not completely furnished until early 1952.

A-3. Aircraft engineering data scheduled to be furnished on or before April 1, 1951, was not completely furnished until December 1951.

A-4. Priming parts, although delivered quite close to scheduled delivery dates, did not incorporate specified engineering changes whose effectivity had been spelled out for K-F's first production.

A-5. The latent deficiencies included in the "Omaha package" were felt, to a greater or lesser degree, throughout the period covered by phase A.



A-6. Concurrent with the above factors was the late delivery of both the landing gear and the engines; to say nothing of the need for corrective work on the engines following their late delivery.

Obviously, the above conditions constituted a definite indication to foresighted management to hold employment to a level considerably below the projected level until such time as the dislocations attendant upon the above factors had been eliminated.

Upon entering phase B of the aircraft program, K-F management deemed it necessary not only to restrict their hiring program, as outlined above, but also to effect substantial reductions in their manpower.

During January and February, 1952, approximately 1,000 employees were released and in August and September 1952, a reduction of nearly 500 employees was accomplished. At the same time, other factors became manifest; some related directly or indirectly to the above factors and others apparently unrelated.

They were as follows:

B-1. Verbal advice from Wright Field concerning the proposed 10-B schedule was received calling ultimately for the stretch-out of the C-119 program through the end of 1953.

B-2. Whereas evidence prior to that time had indicated the near-schedule delivery of satisfactory tooling, actual developments proved that the tooling, in addition to being delivered late, proved to be in numerous instances deficient and unsatisfactory because such tooling was fabricated from inadequate and inaccurate tool designs. The delays in obtaining and setting up satisfactory tooling, more than any other factor, dictated the need for manpower reductions during the early portions of phase B.

B-3. It was during phase B that advice was received concerning the scheduled cutback from 200 to 159 airplanes.

B-4. As was the case with the C-119 program, the aircraft engineering data and the tool engineering data for the C-123 program, although scheduled for delivery in April of 1952, was not received until late 1952.

The phase B factors were continuously effective for the most part throughout the entire period covered by phase B. Again judicious managerial decisions calling for restricted hiring programs and necessary manpower reductions resulted in a minimum of nonproductive time.

Phase C of K-F's program covers the period affected by a number of the above enumerated factors together with several additional apparently unrelated factors which have developed almost simultaneously as follows:

C-1. Fourteen ship sets of outer wing panels furnished by K-F's subcontractor, the Whirlpool Corp. of LaPorte, Ind., were found to be affected by a corrosive condition and as you know had to be reworked either in LaPorte or here in Willow Run.

C-2. Insufficient engineering data coupled with K-F's unsatisfactory workmanship in the early learning production phase resulted in the need for an extensive program of reworking electrical harnesses and connectors (cannon plugs).

C-3. Faulty workmanship together with other factors entailed an expensive program of skin replacement of subcontractor- and K-F-furnished components.

C-4. Continued tooling deficiencies as indicated in B-2, accentuated by the tooling rework dictated by the multitude of engineering changes made it practically impossible to continue production at the then scheduled rate.

C-5. Partially as a result of tooling deficiencies and partially because they were not as far into their learning curve as the other divisions (FAD-furnished detail priming parts had been used heretofore), the fabricating and machining division was unable to keep pace with the output of the other production divisions.

Following shortly after the development of the above factors, AMC published a revised schedule substantially extending the period of peak production for the C-119 aircraft program. The above factors have made it advisable to continue maintaining manpower at a level below the projected manpower usage, which in the early stages of phase C has entailed the release of some 1,400 men.

It is believed that the above, together with the attached manpower chart, satisfactorily disposes of your verbal request for additional information supplementing the referenced portion of our December 31 letter.

Very truly yours,

KAISER MANUFACTURING CORP.,  
S. A. GIRARD,  
Vice President and General Manager, Aircraft.

FEBRUARY 16, 1953.

Memo to file.

Subject: Manpower utilization.

1. Based on the comments made by the contractor in its letters of December 31, 1952, and January 12, 1953, attached. The comments of the manpower utilization team from Hq AMC in their recent survey, the comments of Colonel Jones upon completion of his temporary duty at this residency and personal observation, the million dollar holdback was released February 13, 1953.

2. The request for establishment of an idle-time account was rejected by the contractor. It is not considered advisable to force establishment of such an account by the contractor at this time for the following reasons:

(a) It appears to be an old-fashioned system which is losing favor with accountants and manufacturing firms at this time since the "piece work" pay for production is rapidly disappearing and not in use at this facility.

(b) To establish and use to management's benefit would require establishment of standards for production. Such standards as may be developed for low volume aircraft production lends doubt as to their authenticity for use in connection with accounting for idle time.

3. It is doubtful if a deduction or collection could be made against the contractor for idle time since the actual accounting for idle time is disputable and therefore offer very little basis on which to withhold by proving the degree of idle time. It would appear that in the case of idle time the Government has only its option to require correction of the conditions or terminate its contract.

HARRY A. CHANCE,  
*Captain, USAF, Contracting Officer.*

Mr. ANTON. According to the schedule attached to the report, is this correct: For the months December 1951 to September 1952, 10 or 11 months, the idle hours, according to your schedule, at the Willow Run plant, amounted to 1,420,543 hours. Is that not correct?

Mr. SOLOMON. Yes, sir.

Mr. ANTON. What did you estimate that excessive cost to be which the Government would pay for?

Mr. SOLOMON. May I draw the committee's attention to the fact that at all installations there is a certain degree of idle time. This is my evaluation of the total, without taking into consideration what is the norm. There is no plant that does not have idle time. Either waiting for assignment, or something.

Mr. ANTON. What is your estimate in dollars?

Mr. SOLOMON. \$2,784,000.

Mr. ANTON. What steps did you take to inform procurement officials of the Air Force as to your findings in this matter?

Mr. SOLOMON. This schedule is part of a memorandum from myself to the administrative contracting officer, drawing his attention to the condition, in response to an earlier conference with the contracting officer and with the administrative contracting officer.

Mr. ANTON. Would you identify these documents which accompanied that report, for insertion in the record?

Mr. SOLOMON. Yes, sir.

(See documents above.)

The CHAIRMAN. May I ask General Cook as the senior Air Force officer here if the Air Force has listened to the presentation by representatives of the Air Force this morning, and do you care to challenge or to in any way criticize any of the figures given here, or do you want to stand on your own auditor's statements?

General Cook. Mr. Chairman, I feel—I know that the figures that the auditors have given you are correct in the eyes of the Air Force. However, I feel that in fairness to everyone here, including your own

distinguished committee, that there is a possibility of having figures used in a comparable sense which really are not comparable.

That is all that I would like to say, sir.

Senator DUFF. In that connection may I ask a question?

The CHAIRMAN. Certainly, Senator Duff.

Senator DUFF. This Willow Run plant is the same plant that the Ford Co. built the B-24 in, is it not?

Mr. SOLOMON. Yes, sir.

Senator DUFF. Are there any comparable figures from the Ford operation at the time that they were tooling up for building that bomber during World War II?

Mr. SOLOMON. That is a matter that procurement would know better than I.

The CHAIRMAN. We will ask General Cook about that. Can you answer the question?

General COOK. I am certain that there are figures that are available in the records, Senator Duff. We do not have them with us, however.

Senator DUFF. For one, I think it might be interesting to have for a part of the record those figures, as an absolutely impartial basis of analysis with this situation.

The CHAIRMAN. Will you produce them for the record, General Cook?

General COOK. Yes, sir; we will have them produced.

(The statement referred to is as follows:)

#### FORD OPERATION OF WILLOW RUN IN WORLD WAR II

A facilities contract in the amount of \$84,420,775 created this plant. Of this amount, \$22,897,000 was for machine tooling and production equipment. As this cost was borne under the facilities contract, none of it was included in the supply contract.

The initial contract for B-24 production called for 795 aircraft at a unit cost of \$233,653 for a total of \$185,754,135. The number of aircraft under this contract was increased from time to time to a total of 6,792 aircraft at a total cost of \$1,401,243,912. The first aircraft cost approximately \$265,000. The last one cost approximately \$84,000.

In all, 8,685 aircraft were produced at Willow Run. Because of the high peak production rate and the large volume, this plant produced these aircraft at lower prices than other aircraft producers whose average unit costs ranged from about one and one half times to nearly three times the Willow Run cost.

The CHAIRMAN. I understood from your statement that as far as you are concerned as to the figures, that you know of no particular factor here that was testified to this morning that the Air Force would challenge?

General COOK. I know of no inaccuracies in the figures that the Air Force would challenge.

The CHAIRMAN. I would like to call attention here that it has been testified by witnesses for the Air Force that the cost to the United States Government by Fairchild for this plane was \$265,067; that the same witnesses have testified that the same plane produced by the Kaiser-Frazer Co. has cost this Government, \$1,339,140.

You have also had testimony here on automotive costs, to show that there was an attempt made to bring them into the cost of the airplane and that they had been disallowed by the Air Force auditors.

I think that this committee, as far as the C-119 is concerned, has felt, in starting our investigation, that there might be excessive costs to the Government of the United States in the production of this

plane. We felt that there has been an attempt to build up those costs even further by improper charges.

I think the witnesses have clearly indicated that the committee's fears were justified. Therefore, if there is nothing further this morning, we will recess the hearing.

The next meeting of the committee will be in executive session, and we will determine what further we will do.

Mr. ANTON. I would like to make sure that all the documents that I referred to are in the record.

The CHAIRMAN. All of Mr. Solomon's documents will go in the record.

If there is nothing more, we thank you, Mr. Solomon. The hearing is recessed.

(Whereupon, at 11:18 a. m. the committee adjourned, subject to the call of the Chair.)

STATEMENT BY ROSWELL L. GILPATRICK, FORMER UNDER SECRETARY OF THE AIR FORCE, TO THE SUBCOMMITTEE ON AIRCRAFT PROCUREMENT OF THE SENATE ARMED SERVICES COMMITTEE (Submitted June 17, 1953)

My principal connection with the C-119 program at Willow Run occurred during the 15-months' period I served as Under Secretary of the Air Force (October 1951-February 1953). The initial decision to make the Willow Run plant a second source for C-119's had taken place some 5 months prior to my original appointment as Assistant Secretary of the Air Force in May 1951. My arrival in the Air Force coincided with the second decision to put the C-123 into production at Willow Run, phase out the C-119 line there and open up the Park Ridge plant in Chicago for C-119 production by Fairchild.

As Under Secretary of Air, I continued to exercise the authority over aircraft procurement and production for the Air Force that Mr. Finletter, as the Secretary of the Air Force, had previously delegated to my predecessor, Mr. McCone. By that time, the fall of 1951, all of the Air Force's primary sources of production, comprising the basic aviation industry in this country, were turning out finished products at increasing rates. The second sources, which had not been activated until after the adoption of the "broadening of the base" policy in December 1950, were still in the process of tooling up or in the early stages of production. Therefore, most of the production problems that reached my office related to the second sources, particularly those operated by automotive concerns who lacked the experience of the basic aircraft producers in manufacturing airframes or jet engines. Among these were the Studebaker and Packard plants to produce the General Electric J-47 jet engine; Ford's production of the Pratt & Whitney R-4360 reciprocating engine; Nash's production of the P. & W. R-2800; Buick's production of the Wright J-65 jet engine; Chevrolet's production of Wright's R-3350; and General Motor's program for making Republic F-84F Thunderstreaks at Kansas City.

The second source program that claimed more of my attention than any other was the production of C-119's by Kaiser-Frazer at Willow Run. From the spring of 1952 until I left the Pentagon several months ago, the progress, or lack of it, by Kaiser-Frazer in turning out C-119's was under constant surveillance by me both here at headquarters in Washington and on my periodic trips to the Air Materiel Command in Dayton. My concern was threefold:

First, Kaiser-Frazer's capability both of meeting its delivery schedules and of turning over to the Air Force a satisfactory end product;

Second, Kaiser-Frazer's costs, specifically whether its production experience was conforming to the 80 percent learner's curve (i. e., coming down in terms of man-hours per airframe pound, as additional units were fabricated); and

Third, whether in the arrangements for a V-loan to finance Kaiser-Frazer's production the Government's interests were being adequately safeguarded.

This same concern was shared by those in the Air Staff at Headquarters and at the Air Materiel Command whose job it was to see to the successful execution of the Air Force's production programs. In addition to General Cook whom you

have already heard, the officers at AMC by whom I was consulted on Willow Run operations were Lieutenant General Rawlings, commanding general AMC, Major General Irvine, the deputy commanding general for AMC, and Major General Bradley, Director of Procurement and Production at AMC.

The steps to protect the Government's interest in the operation at Willow Run which were taken as a result of this top level attention included the following:

1. *Contract administration.*—Because of the importance of the C-119 and C-123 programs and Kaiser-Frazer's limited experience in the production of complete aircraft, the Air Force assigned several of its most qualified officers to watching over these programs, such as Mr. G. G. Whipple (then Captain, USAF) as contracting officer at AMC, Col. Harley Jones as plant representative (Jones had been stationed at Willow Run when it was being used for bomber production during World War II), and Col. S. E. Cleveland (who had a background of experience with the C-119 through having been plant representative at the Fairchild Hagerstown plant for several years).

2. *Financial control.*—Contract financing arrangements with Kaiser-Frazer were handled under the personal supervision of Chester D. Seftenberg, deputy for contract financing in the office of the Secretary of the Air Force, and Mr. Robertson, a former banker acting as special adviser to the Director of Procurement and Production at AMC. Among other measures taken by the Air Force to keep the V-Loan to Kaiser-Frazer on a sound basis were—

(1) The stipulation that all Kaiser-Frazer defense business be segregated in a separate corporation, Kaiser Manufacturing Co., whose financial strength would not be weakened by any losses that might be incurred in Kaiser-Frazer's automotive operations,

(2) the requirement that the equity in Kaiser Manufacturing be built up by the injection of an additional \$5 million of capital, and

(3) a strict watch over the allocation of Willow Run overhead items (such as interest and salaries) to Kaiser Manufacturing which, even though nonreimbursable as costs under Government contracts, might adversely affect the margin of safety behind the V-Loan.

3. *Contract audit.*—In addition to the usual scrutiny given to cost-plus-fixed-fee contractors by audit teams operating out of AMC, the cost experience under the Kaiser-Frazer contract was closely observed by the Headquarters Audit Division of the deputy chief of staff comptroller. The contract audits of Kaiser-Frazer's costs resulted in the questioning and disallowance of many questionable items (at mid-1952, for example, over \$3,800,000 of claimed Kaiser-Frazer costs were in suspense).

4. *Manpower utilization.*—To checkup on Kaiser-Frazer's efficiency in the use of manpower as well as the effect on its costs of restrictive provisions in its labor contracts, AMC had at least two extensive surveys made by a team of its manpower specialists.

5. *Checkup by Department of Defense.*—Besides supervision by its own people the Air Force arranged for an inspection of the Willow Run operation by the Special Assistant to the Secretary of Defense on production matters, Mr. Hugh Dean, who had been general manager of the Chevrolet Division of GM 1945-49 and vice president in charge of GM's manufacturing staff 1949-52.

It should also be mentioned that the C-119 program has already been looked into on at least two occasions by congressional committees. The Hebert Subcommittee of the House Military Affairs Committee held executive hearings on the C-119 program in March of 1952, and later that year the House Military Appropriations Subcommittee had made a staff investigation of Kaiser-Frazer's costs in the C-119 program.

\* \* \* \* \*  
Early last fall the disparity in costs between Kaiser-Frazer's operations at Willow Run and those of Fairchild at Hagerstown became the subject of many inquiries from Congress and the press, culminating in a telegram to the Secretary of the Air Force from the chairman of this subcommittee during the first week of October, requesting that Kaiser-Frazer's C-119 contract be cancelled. On behalf of Mr. Finletter I replied to Senator Bridges on October 10, 1952, giving the reasons why, in my judgment, the Air Force had no choice but to complete the then scheduled procurement of C-119 aircraft from Kaiser-Frazer, some of which had already been delivered. In my reply, after stating that more than half the total costs under the contract had by that time been incurred by and reimbursed to Kaiser-Frazer (including approximately 90 percent of the tooling expense), I had the following to say about the disparity between Fairchild and Kaiser's prices:

"The Kaiser price cannot in any way be fairly compared to the Fairchild price until Kaiser has acquired a production history matching Fairchild's. Kaiser prices would only be comparable with the Fairchild price if Fairchild were also starting production, producing at a relatively small percentage of its plant capacity, and were affording facilities for greater expansion in the event of a further emergency as is the case with Willow Run. Kaiser is at about the same stage in its overall program as was Fairchild when 5 years ago it had a unit price in excess of \$650,000 on the C-82. The last C-119's produced by Kaiser under its present contract will be considerably closer to Fairchild's price than will be the first ones. Willow Run will then follow with C-123 production. It will not be until at least the end of C-123 production, under the existing contract, that anything like a comparable price will be available. Only then will Kaiser have absorbed the initial cost incident to establishing a new source of production in terms of tooling, establishing subcontracting sources, production engineering, building a labor force and all the other customary expenses which Fairchild has long since absorbed under its contracts."

For the reasons stated to Senator Bridges it was my best judgment then, and it is now, that it would have been a mistake for the Air Force to have canceled Kaiser-Frazier's C-119 contract in the summer or fall of 1952. Moreover, to my knowledge no official of the Air Force ever recommended cancellation although such action was carefully considered on several occasions.



## AIRCRAFT PROCUREMENT

TUESDAY, JUNE 23, 1953

UNITED STATES SENATE,  
PREPAREDNESS SUBCOMMITTEE No. 1,  
ARMED SERVICES COMMITTEE,  
*Washington, D. C.*

The subcommittee met, pursuant to call, at 10 a. m. in room 212, Senate Office Building, Washington, D. C., Senator Styles Bridges (chairman) presiding

Present: Senators Bridges, Flanders, Duff, Byrd, and Symington.

Also present: Senator Potter; Fred Rhodes, chief counsel; James Anton, special counsel; and Harold M. Devlin, accountant.

The CHAIRMAN. The committee will come to order.

On Friday, June 5, the committee recessed in executive session. Today's hearing marks a continuation of the committee's inquiry into the award of Air Force contracts for the production of the C-119 aircraft.

During the previous sessions the committee had figures presented by the Air Force which indicated production costs of the C-119 by Kaiser-Frazer to be over five times the production costs of the same plane by Fairchild. Not only were these costs startlingly high, but the production of aircraft was amazingly low.

We also had testimony that Kaiser-Frazer had attempted to charge off portions of its automotive losses to the C-119 contract.

Representatives of both the civilian and military branches of the Air Force acknowledged the facts presented to them; asserted that they were disappointed by Kaiser's performance at Willow Run and indicated that they intended to take some action.

Upon receiving this testimony, the committee was satisfied that sufficient information had been presented upon which to base interim conclusions and recommendations. Nevertheless the committee extended to Kaiser-Frazer Corp. the opportunity to testify in open hearings.

The committee decided at its organization meeting that it would first hear the Air Force since the Air Force is the Government agency involved in the letting of the contract; it supervises production under the contract; and makes payment of money as authorized by the contract. Thereafter the committee decided to consider the requests of any other individuals who desired to be heard.

On May 30, representatives of Kaiser-Frazer were handed copies of a press release listing the witnesses which the committee intended to call to appear at the hearings. At that time and throughout the hearings, Kaiser-Frazer was free to request the opportunity to be heard.

When the hearings were recessed on June 5, Kaiser-Frazer was extended an oral invitation to appear before the committee.

One week later, on June 12, Kaiser-Frazer requested the committee's permission to insert a written statement in lieu of making a public appearance. Acting upon this, the committee began to compile its report.

On June 15 the chairman wrote a letter to Kaiser-Frazer granting permission to insert a written statement.

On June 17, 2½ hours before the committee met to consider its report, Mr. Henry Kaiser had a letter hand-delivered to the chairman of the committee and simultaneously held a press conference charging that he was being prevented from stating the position of his company.

The committee frankly feels that Mr. Kaiser's request was timed to forestall release of the committee's report. Nevertheless, the committee does not want anyone to feel that he is being unfairly treated. Accordingly these hearings are continuing for the express purpose of taking testimony from Mr. Henry Kaiser on the subject of the Kaiser-Frazer C-119 contract, and to hear testimony from Mr. Boutelle regarding the Fairchild contract.

In his press release, Mr. Kaiser has asserted that the Air Force acquired more than airplanes when it set Kaiser-Frazer up to produce the C-119 at Willow Run. He has claimed that the Air Force was buying productive capacity. By accepted definition productive capacity consists of an available plant, appropriate tooling, a trained labor force and management know-how. Let us look at the record to see what this productive capacity amounts to in the case of Willow Run.

The Willow Run plant itself was available to the Air Force in any event under the terms of the agreement whereby it was sold to Kaiser-Frazer.

Tooling for the C-119 has been installed at Willow Run. But, according to the Air Force, this tooling will have to be stored or scrapped at the conclusion of this program. Indicative of this is the fact that over \$25 million has already been spent on tooling for the C-123 which is to replace the C-119 at Willow Run.

The labor force at Willow Run will have to be retrained for the C-123. Furthermore, there is a real question that a trained labor force exists even for the C-119. An Air Force survey team has reported that the labor turnover at Willow Run amounts to nearly 150 percent per year. The committee cannot believe that a labor force subject to such a rate of attrition has any great value to our overall defense effort.

As far as managerial know-how is concerned, the high costs and slow deliveries evidenced in the C-119 contract indicate that Kaiser-Frazer has developed a minimum of know-how in aircraft production.

The Air Force has spent \$168 million for 59 airplanes and a productive capacity which the record indicates would have been just as valuable if Willow Run had remained idle. By comparison, the record shows that the 59 planes could have been purchased for \$16 million from other sources. Furthermore, the productive capacity of the Government plant at Chicago could have been made available to the Air Force. It would have cost between two and three million dollars to rehabilitate this plant.

Mr. Kaiser has also asserted that he has done many fine and patriotic things for the United States and that this investigation is

just another plot to persecute him. This committee does not intend to crucify or glorify any individual or group of individuals. This committee's sole interest is to determine the facts surrounding the award, cost, and performance of C-119 contracts.

Considering all of the money which has been poured into the C-119 program it is not unreasonable to expect that the Air Force was buying performance. The Congress is not being unfair when it expects to see something produced for the many dollars which have been disbursed.

The committee has looked to the Air Force to provide facts. If the witness finds himself in disagreement with whatever may have been said heretofore, it must be emphasized that this difference is one between a contractor, and his Government principal—the United States Air Force.

At this point, I would like to insert a biographical sketch of Mr. Henry Kaiser, who has requested permission to appear today and testify.

(The biographical sketch is as follows:)

Mr. Henry J. Kaiser was born at Sprout Brook, N. Y., May 9, 1882.

He is manager and president of Henry J. Kaiser Co., Permanente Cement Co., Permanente Steamship Corp., Kaiser Aluminum & Chemical Corp., Kaiser Steel Corp., H. J. Kaiser Motors, Kaiser Engineers, Inc., Kaiser Metal Products, Inc., Kaiser Gypsum, coorganizer, chairman Kaiser-Frazer Corp. (manufacturers of automobiles) and Kaiser Community Homes.

He was manager of seven shipyards on the Pacific coast during World War II. He was a member of various governmental relief agencies and commissions during World War II.

The CHAIRMAN. I would like to have entered into the record a series of documents, a copy of which each member of the committee has before him, and made a part of the record.

The documents identified as 1 through 22, are as follows:

- Document No. 1. K-F News, March 24, 1952, K-F's first C-119 dedicated.
- Document No. 2. Report of survey of February 24-27, 1953, concerning status of Contracts AF 18481 and AF 22446 for C-119F and C-123B airplanes at Kaiser Manufacturing Corp. & Chase Aircraft Co. Willow Run facility.
- Document No. 3. Subject: Omaha Package—Its origin as regards K-F's C-119 program, from Patyrak to resident auditor.
- Document No. 4. Schedule of costs incurred on contract AF 33 (038)-18481. Period: December 20, 1950, through June 13, 1953. Kaiser Manufacturing Corp.
- Document No. 5. Schedule of costs incurred on contract AF 33 (038)-18481. Period: December 20, 1950, through May 31, 1952. Kaiser Manufacturing Corp.
- Document No. 6. Conditions causing excessive costs, dated July 2, 1951, from Sidney Solomon to AF plant representative.
- Document No. 7. Conditions causing excessive costs, dated July 5, 1951, from Ray C. Ulrey, AF plant representative, to Mr. Patyrak.
- Document No. 8. Conditions Causing Excessive Costs, dated July 6, 1951, from Mr. Patyrak to AF plant representative.
- Document No. 9. Shop Rule Violations, dated July 9, 1951, from John Taeke to all manufacturing supervision.
- Document No. 10. Survey of Cancelled Parts Resulting in Possible Cancellation Claims, dated September 18, 1951. Interoffice correspondence from Greenwald and Lt. Powers to Jespersen and Solomon.
- Document No. 11. Tooling Inspection and Rework, dated December 18, 1951, from Greenwald and Mr. Simpson, USAF to Hollis and Solomon.
- Document No. 12. Report on Conditions Causing Excessive Cost, dated February 25, 1952, from Sidney Solomon to Auditor General, USAF.
- Document No. 13. Memorandum of telephone conversation between Edgar Kaiser and General Bradley, May 5, 1952, 11:40.

- Document No. 14. Manpower Problems, K-F, Willow Run, dated June 3, 1952, from AF plant representative to Commanding General, AMC.
- Document No. 15. Memorandum of meeting held in Mr. Kaiser's office on October 31, 1952. Interoffice memo of meeting prepared by C. M. Hollis, dated November 3, 1952.
- Document No. 16. Memorandum for files, rough draft, subject: Memorandum of meeting with the Air Force, November 4, 1952, 9:30 a. m., from Patyrak.
- Document No. 17. Report on Conditions Causing Excessive Costs, dated October 9, 1952, to Auditor General USAF from Sidney Solomon.
- Document No. 18. Performance Under USAF Contracts, dated December 5, 1952, from General Bradley, through Air Force plant representative to Kaiser Manufacturing Corp.
- Document No. 19. Memo of telephone conversation between Edgar Kaiser and General Bradley, December 24, 1952, 4:10.
- Document No. 20. Report of meeting at K-F, February 3, 1953.
- Document No. 21. C-119 Production at Kaiser Mfg. Co., Willow Run, Mich., dated April 28, 1953 (copy). From Col. Harley S. Jones to Colonel Graalman.
- Document No. 22. USAF Manpower Utilization Survey, Kaiser-Frazer Corp., Willow Run, Mich., November-December 1952.

#### DOCUMENT NO. 1

[Pictures omitted]

[From the K-F News, March 24, 1952]

#### K-F's FIRST C-119 DEDICATED

Mrs. Ralph Williams leaned toward the silvery plane glistening in the bright afternoon sun.

In a soft voice, mingled with pride and sorrow, she said:

"I name this plane the Robert L. Williams."

With those words, she swung a bottle of champagne against the nose of the plane—dedicating it in honor of her soldier-son Robert, who was killed in Korea.

Thus, the first cargo aircraft assembled at K-F, the Fairchild C-119, was christened at Willow Run, Saturday, March 8.

Thousands of employees, with their wives and children, and prominent civil, industrial, labor, and military leaders witnessed the dedication.

A 1-hour long ceremony commemorating the event took place in the final aircraft assembly area.

Principal speaker was Walter P. Reuther, president of the International UAW-CIO.

Henry J. Kaiser, chairman of the K-F board of directors, and Edgar F. Kaiser, president of K-F, also addressed the huge audience.

With Mrs. Williams on the christening platform was her husband, a K-F maintenance welder, and two sons, Lowell and Carl.

During the ceremony, the 60-piece Selfridge Field Air Force Band and a 28-voice choir of singers, composed of K-F workers, entertained the audience.

Thirty-six hospitalized war veterans from Percy Jones General Hospital and their commander, Brig. Gen. M. E. Griffin, were honor guests.

For the dedication, K-F held open house. Employees and their families began streaming into the plant shortly after noon to inspect automotive and aircraft facilities.

The dedication received wide television, radio, newsreel, and newspaper coverage.

#### AIR FORCE, FAIRCHILD, EMPLOYEE TEAMWORK LAUDED BY KAISER

Speaking at the C-119 dedication ceremony, Henry J. Kaiser paid tribute to K-F employees for the part they played in assembling the first Fairchild flying boxcar at Willow Run in the short span of 8 months.

Kaiser also lauded the Air Force and Fairchild Engine & Airplane Corp. for the valuable cooperation they provided.

"There are congratulations due to each man who has played an important part in building this first plane," he said, "the workman, the production men, and the planners of Willow Run."

"The farsighted planning of the Air Force in storing World War II tools and machinery, which otherwise would have taken months to build, were made available to K-F," he said.

## AIRCRAFT PROCUREMENT

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"Fairchild furnished us with their engineering design and technical know-how and the component parts for the first planes."

Kaiser said that "We have joined hands with the Air Force, with Fairchild, and with the workmen of local 142 UAW-CIO \* \* \* and the result is this dedication ceremony."

## WILLOW RUN HONORS HEROIC AMERICAN FAMILY

"What does it mean to be an American?"

"Being an American can be exalted in words and in terms of ideals—but it can be understood only as a way of life."

"In the maintenance department of Kaiser-Frazer is a welder. His name is Ralph Williams. He has been with the company since August 1946 \* \* \* he is a respected member of his union \* \* \*."

"Ralph Williams is married, and he has a family. His wife, Ila Williams, also works \* \* \* together they raised a family of three boys."

"Lowell Williams was an employee in the mail room at Kaiser-Frazer until some few months ago. He is now a private in a field artillery battalion at Fort Hood, Tex. He is engaged to Mary Ann Chase, a secretary in the K-F market research division."

"The second son is Carl Williams \* \* \*. Carl also works here at Kaiser-Frazer. He is a stock clerk in the tabulating department. He is 18 \* \* \*."

"Then there was Robert L. Williams, the third son. Robert L. Williams was killed in Korea, on October 3, 1950, in an attack on Hill 814, near Sichon."

"What does it mean to be an American?"

"I think this family has lived America \* \* \*."

"We have asked them to be with us today because they symbolize what all of us are \* \* \* people who are dedicated to such common objectives as good homes, opportunity for their children, a chance to work in freedom, to have friends, to live in security."

"The price that they have paid for your security—for your right to live in freedom, is the life of their son \* \* \*".—Edgar F. Kaiser.

## SPEAKERS ENVISION GREATER TOMORROW BUILT BY FREE MEN

Henry J. Kaiser, chairman of K-F board of directors: "There are congratulations due to each man who has played a part in bringing us to this new beginning: the workman, the production men, the planners, the Air Force, Fairchild Engine and Airplane Corp., and thousands of others. Throughout my life, it always has been the same. Nothing is ever really accomplished except through new beginnings. When we are welded together in our faith and in our objectives, there is nothing that we cannot do. It is only when we doubt our unified strength, when we lose ourselves in selfish objectives that we are confused."

"As each thing is done, as each goal is accomplished we open new doors ahead and we build our faith and skill. We are better able to do bigger things that lie ahead. That is what is happening here today."

Edgar F. Kaiser, president of Kaiser-Frazer: "Free men, I believe, choose to be builders. In whatever they do they build \* \* \* building themselves so that they may accept additional responsibility, building their nation, their families, following the freedom of their own will and their own initiative. It is certain that our strength cannot be duplicated in any system which does not permit that choice \* \* \* which does not allow each member of a nation to share both in the building, and the rewards that come from building."

"We, here, are builders, all of us, and the free decisions that each of us makes in his own life, is a measure of how adequately we as a nation accept the dual responsibility of peace and defense which is now required of us."

Walter Reuther, president of UAW-CIO: "Let us on this occasion rededicate ourselves to the tasks that lie ahead, by redoubling our efforts of work in the vineyards of American democracy. There is a great deal of unfinished work ahead, but I am confident that this demonstration here today symbolizes in a very tangible way that we in America, free labor and free management can work together to develop the economic and moral leadership to lead the free world forward in the building of that better tomorrow; in which free people and nations can live in peace as neighbors; in which people everywhere can enjoy economic and social justice—a better world that we can fashion in the image of freedom, image of justice and in the image of brotherhood."

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AIRCRAFT PROCUREMENT

DOCUMENT NO. 2

REPORT OF SURVEY OF FEBRUARY 24-27, 1953, CONCERNING STATUS OF CONTRACTS AF-18481 AND AF-22446 FOR C-119F AND C-123B AIRPLANES AT KAISER MANUFACTURING CORP. AND CHASE AIRCRAFT CO., WILLOW RUN FACILITY

*I. General*

1. Pursuant to the authority contained in Headquarters AMC, Director of Procurement and Production letter dated February 4, 1953, subject "Proposed Headquarters AMC survey of contractor's operation" to the AF plant representative at Kaiser Manufacturing Corp. (copy attached as exhibit A) a survey of the status of accomplishment and current trends affecting the performance of subject contracts was accomplished by the following Headquarters AMC personnel:  
 Maj. C. G. Glasgow, MCPPAC, Chief, Medium Transport Unit  
 Maj. W. F. Rankin, MCPPAC, Chief, Assault and Special Aircraft Unit  
 Capt. C. W. Clark, MCPPAC, C-123B project officer  
 Mr. R. W. Burns, MCPG, chairman, Procurement Committee  
 Mr. W. R. Gardner, MCPZ, Deputy Chief, Plans and Programs Office  
 Dr. E. H. Mereness, MCPBB, Chief, Industrial Analysis Section  
 Mr. F. I. Robertson, MCPE, executive for finance  
 Mr. G. G. Whipple (team captain), MCPPA, technical assistant, Aircraft Branch

*II. Objectives*

2. The objectives of this survey were to determine:
  - (a) The breakdown of costs incurred through January 31, 1953, for the C-119F and C-123B contracts, with further segregation of the latter as to incurrence at Willow Run and West Trenton.
  - (b) The degree of completion of total contract requirements attained by this expenditure.
  - (c) A current estimate of total contract costs.
  - (d) What delivery schedules might reasonably be expected to be attained on each program.
  - (e) Financial capability of Kaiser Manufacturing Corp. and Chase Aircraft Co. to perform, related as pertinent to the overall Kaiser-Frazer financial situation.
  - (f) The degree and rate of progress attained by KMC in correction of specific deficiencies brought to their attention as a result of the prior survey of the C-119 program conducted on November 21-25, 1952 (survey report attached hereto as exhibit B and notice to contractor in Headquarters AMC, Director of Procurement and Production letter dated December 5, 1952, subject "Performance under USAF contracts attached as exhibit C).
  - (g) Any other unresolved problems requiring Air Force corrective action in relation to these programs.

*III. Factual data*

3. The following resident Air Force personnel at the Willow Run facility were contacted and contributed to this survey by supply of requested data and evaluation recommendations:

Lt. Col. W. S. Martin, Jr., AFPR, Willow Run facility  
 Capt. H. A. Chance, contracting officer, Willow Run facility  
 Mr. Sidney C. Solomon, AF resident auditor, Willow Run facility

4. The following contractor personnel were primary points of contact for supply of required data from contractor records:

- (a) For Kaiser Manufacturing Corp.:
  - Mr. John Hallett, executive vice president and general manager KF and KMC
  - Mr. S. A. Gerard, vice president and general manager aircraft division
  - Mr. C. M. Hollis, comptroller, KMC and KF
  - Mr. M. Miller, executive vice president, Kaiser-Frazer
  - Mr. R. B. Fialho, manager of scheduling
  - Mr. R. C. Boland, budget director
- (b) For Chase Aircraft Co.:
  - Mr. C. P. Bedford, president
  - Mr. J. X. Cousins, vice president and treasurer
  - Mr. W. A. Cannon, administrative manager, Willow Run division
  - Mr. W. F. Triestat, staff assistant to president

5. The specific data obtained, interpreted, evaluated, and projected in relation to the objectives stated in paragraph 2 preceding, are set forth as exhibits to this report as follows:

- (a) Exhibit D.—C-119. Incurred cost as of January 31, 1953.
- (b) Exhibit E.—C-119. Production accomplishment as of January 31, 1953.
- (c) Exhibit F.—C-119. Total contract cost estimate.
- (d) Exhibit G.—C-119. Production forecast.
- (e) Exhibit H.—C-123. Incurred cost as of January 31, 1953.
- (f) Exhibit I.—C-123. Total contract cost estimate.
- (g) Exhibit J.—C-123. Schedule forecast.
- (h) Exhibit K. Corrective action against prior deficiencies.
- (i) Exhibit L. Unresolved problems as of current date.

#### EXHIBIT A

### HEADQUARTERS AIR MATERIEL COMMAND

WRIGHT-PATTERSON AIR FORCE BASE, OHIO

FEBRUARY 4, 1953.

Subject: Proposed Headquarters AMC Survey of Contractors Operations.  
To: Air Force Plant Representative, Kaiser Manufacturing Corp., Central Air Procurement District, Willow Run, Mich.

1. On November 21 to 25, 1952 a special Headquarters AMC survey team reviewed the status and trends of the C-119 program at Willow Run. The findings and recommendations of that group were presented to higher Air Force echelons and pertinent portions thereof were the subject of a directive action to the contractor expressed in a letter from this office dated December 5, 1952, subject Performance Under USAF Contracts. This letter, and subsequent verbal contact with Mr. Edgar F. Kaiser advised that subsequent detailed review of the contractor's operations would be accomplished at some future date, and that the degree and rate of progress attained in correction of observed deficiencies would establish the basis for disposition of contracts placed or pending with KMC and Chase Aircraft Co.

2. It is now desired to definitely confirm the date and content of the resurvey. The first survey was conducted in relation to a cost accounting cutoff of October 31, 1952. Since a 90-day period should be a reasonable minimum to determine the course of corrective action, the January 31, 1953, accounting cutoff will be used for the resurvey. Based on prior experience, this information will require 3 weeks to be placed in fully usable form and accordingly the date of the resurvey has been established as February 24 through 27, 1953.

3. Since the resurvey is primarily for the purpose of establishing trends from the position established by the initial survey, it is imperative that the data supplied and its analysis be performed by identical methods to those employed on the initial survey. A copy of the initial survey report is attached hereto. However, the C-123 program must also be included as a complete contract entity, which will require that West Trenton costs and accomplishment through January 31 must be integrated with the Willow Run performance on that program, prior to February 24.

4. In general, the survey shall primarily involve the following areas:

- (a) Breakdown of incurred cost through January 31, 1953 for:
  - (1) C-119 contract.
  - (2) C-123 contract, with individual cost elements segregated as incurred at: (a) West Trenton, (b) Willow Run.
- (b) Status of completion attained by the expenditure breakdown established in 4 (a) above.
- (c) Estimated cost of completion based upon performance versus incurred costs.
- (d) Financial capability of KMC and Chase to perform, related as pertinent to the overall Kaiser-Frazer financial adequacy.
- (e) Production outlook.

5. The personnel composition of the survey team will be as follows:

Maj. C. G. Glasgow	Mr. W. R. Gardner
Maj. W. F. Rankin	Dr. E. H. Mereness
Capt. C. W. Clark	Mr. F. I. Robertson
Mr. R. W. Burns	Mr. G. G. Whipple (team captain)

6. It is requested that you apprise the contractor of the proposed program and insure that contractor resources required for accomplishing this survey are properly available. Your office may be called upon for advice and assistance to the Headquarters AMC team and your full cooperation in that regard is solicited. By command of Lieutenant General Rawlings:

MARK E. BRADLEY, Jr.  
Major General, USAF, Director of Procurement and Production.

SURVEY—STATUS OF CONTRACT AF 33(038) 18481 159 C-119 TRANSPORT AIRPLANES, KAISER MANUFACTURING CORP., WILLOW RUN, MICH.

Pursuant to instructions from Maj. Gen. Mark E. Bradley, Jr., the status of subject contract was reviewed on November 21-25, 1952, by a team from the Directorate of Procurement and Production, Headquarters, Air Materiel Command, consisting of:

Mr. F. I. Robertson, MCPE	Dr. E. H. Mereness, MCPBXB
Mr. R. W. Burns, MCPC	Mr. Richard Durstenfeld, MCPBXB
Mr. W. R. Gardner, MCPZ	Maj. C. G. Glasgow, MCPPAC
Mr. B. D. Loofbourrow, MCPPPOP	Capt. G. G. Whipple, MCPPA

The objective of this review was to conduct a fact-finding survey to determine—

- (1) Breakdown of incurred cost to date.
- (2) Status of contract in relation to incurred cost.
- (3) Cost of completion of first 14 airplanes (lot 1).
- (4) Feasibility of meeting current production schedule.
- (5) Estimated cost of completion of 159 airplanes.

Other Air Force personnel contributing to this survey were:

Capt. H. A. Chance, AF Contracting Officer, K-M Corp.  
Capt. H. W. Smith, AF Chief Production Branch, K-M Corp.  
Lt. Col. S. E. Cleveland, AFPR Fairchild Engine & Airplane Co., Hagerstown, Md. (on TDY at K-F).  
Mr. Sidney C. Solomon, AF resident auditor, K-M Corp.

Inasmuch as the company's books and records were closed to October 31, 1952, that date was taken as a basis for the determinations arrived at (books were audited to that date by Messrs. Touche, Niven, Bailey, and Smart, the company's certified public accountants).

The five objectives stated above are covered by part I, section 1-5 attached hereto, consisting of tabulations setting forth the condensed or consolidated findings.

Part II. (also sec. 1-5) contains the "backup" material including definitions and explanations and methods or formulas used in arriving at the end results and such assumptions as were necessary to correlate data.

#### PART I

##### Section 1

Incurred cost to Oct. 31, 1952

	Total	Production cost	Nonrecurring cost
Subject to fee:			
Production material.....	\$14,257,398	\$14,257,398	
Subcontractors costs.....	22,466,259	16,263,548	\$6,202,711
Direct labor.....	9,626,947	9,626,947	
Manufacturing expense.....	44,709,581	31,961,464	12,748,117
Engineering expense.....	3,587,106	3,587,106	
Project tools and design service.....	13,616,048		13,616,048
Portable tools and equipment.....	1,391,534	695,767	695,767
Plant rearrangement.....	931,412		931,412
Administrative expense.....	3,822,273	2,567,507	1,254,766
Home office expense.....	935,728	696,058	239,670
Contract termination.....	91,673		91,673
Total.....	115,435,969	79,655,795	35,780,164
Not subject to fee: partial occupancy costs.....	2,041,682		2,041,682
Earned fee.....	4,323,744	2,982,870	1,340,874
Total cost incurred to Oct. 31, 1952.....	121,801,386	82,638,665	39,162,720



Section 2

*Accomplishment under contract.*—1. As of October 31, 1952, the equivalent of 46 complete aircraft have been produced. This is established as follows:

(a) The percentage of completion by production lot was determined as the ratio of the quantity of completed shop orders (or assembly parts lists, as appropriate) to the total required for the release of a lot. Based on completed order increments, 44 equivalent airplanes have been produced, estimated by lot as follows:

Lot No.	Quantity of aircraft in lot	Order or assembly parts lists percentage complete as of Oct. 31, 1952	Equivalent airplanes
1 A.....	2	100	2.0
1 B.....	3	100	3.0
1 C.....	9	98	8.8
2.....	16	87	13.9
3.....	16	60	8.0
4.....	25	25	6.2
5.....	34	7	2.4
Total.....			44.3

As of report date, an insignificant amount of work had been performed against lots 6 and 7.

(b) To give due weight to 5,341 fabrication orders in process, but not complete as of the survey date (not included in *a* above) it was assumed that the aggregate completion of such orders was 50 percent. By relating semiprocessed orders to the fabrication lot to which they apply an additional 1.6 airplanes of equivalent production is represented by the fabrication work performed on these incomplete orders.

Lot	Quantity of semiprocessed orders	Ratio of orders to	Number of aircraft in lot	Equivalent aircraft
	2	2 <i>Total orders for lot (12,000)</i>		
1 and 2.....	77	0.007	30	0.2
3.....	404	.034	16	.6
4.....	666	.055	25	1.4
5.....	1,523	.127	34	4.3
Total fabrication equivalent.....				6.4
Fabrication being 25 percent of total production effort airplane equivalent of this fabrication.....				1.6

**Section 3**

*Kaiser Manufacturing Corp. estimated cost of first 14 C-119 airplanes*

	Total	Unit
<b>Production costs:</b>		
Production material.....	\$3,167,990	\$226,285
Subcontractors' costs.....	3,378,354	241,311
Direct labor.....	3,637,788	259,842
Manufacturing expense.....	12,038,572	869,898
Engineering expense.....	538,608	38,472
Portable tools and equipment.....	61,264	4,376
Administrative expense.....	966,322	69,023
Home office expense.....	262,486	18,749
<b>Total production costs.....</b>	<b>24,051,384</b>	<b>1,717,956</b>
<b>Nonrecurring costs:</b>		
Project tools and purchased design service.....	1,697,836	121,274
Portable tools and equipment.....	61,264	4,376
Plant rearrangement.....	1,749,230	124,945
Contract termination costs.....	82,334	5,881
<b>Total nonrecurring costs.....</b>	<b>3,590,664</b>	<b>256,476</b>
<b>Total costs.....</b>	<b>27,642,048</b>	<b>1,974,432</b>
<b>Fixed fee.....</b>	<b>581,518</b>	<b>41,537</b>
<b>Total estimated cost.....</b>	<b>28,223,566</b>	<b>2,015,969</b>

**Section 4**

*Feasibility of meeting production schedule*

	To date	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Contract schedule....	10	4	11	12	11	12	12	12	12	12	12	12	12	9	6
AMC estimate.....	10	3	8	7	5	7	9	11	13	14	15	15	14	14	14
Schedule net position (cumulative).....	10	1	4	9	15	20	23	24	23	21	18	15	13	8	0

(a) Basic assumption is a total of 159 airplanes will be accomplished by December 1953.

(b) Completion of 159 airplanes can be completed, provided there is no change in present contract schedule.

(c) The contractor has capacity to produce in excess of a peak rate of 12 airplanes a month which will permit pickup of early arrearages by December 1953.

(d) Estimated cost to complete the contract assumes completion of 159 airplanes by December 1953.

Production costs	Total	Unit
Production material.....	\$18,375,312	\$115,508
Subcontractors' cost.....	38,368,449	241,311
Direct labor.....	24,533,859	154,301
Manufacturing expenses.....	63,225,555	397,645
Engineering expenses.....	7,158,657	45,023
Portable tools and equipment.....	695,784	4,376
Administrative expenses.....	4,790,574	30,186
Home office expense.....	1,440,540	9,060
Total production costs.....	158,597,730	997,470
Nonrecurring costs:		
Project tools and purchased design services.....	19,282,566	121,274
Portable tools and equipment.....	695,784	4,376
Plant rearrangement.....	19,866,255	124,946
Contract termination costs.....	935,070	5,881
Total nonrecurring costs.....	40,779,684	256,476
Total costs.....	199,377,414	1,253,946
Fixed fee.....	6,604,383	41,537
Estimated engineering changes.....	330,720	2,080
Total airplane estimated cost.....	206,312,517	1,297,563

## EXHIBIT C

DECEMBER 5, 1952.

Subject: Performance under United States Air Force contracts.

Through: Air Force plant representative.

To: Kaiser Manufacturing Corp., Willow Run, Mich.

(Attention: Mr. Edgar Kaiser.)

1. Since your entry into the aircraft-manufacturing field in December 1950, both this Headquarters and the Air Materiel Command Procurement Field Organization have made frequent recommendations to, and demands upon, your firm for institution and continued application of management practices essential to an acceptable operation in performance of Air Force contracts. Although some improvements have been made, it is becoming increasingly evident that your overall progress to date falls far short of the minimum essentials necessary to guarantee reasonable costs to the Air Force.

2. This letter is based primarily upon the findings of a special survey team which reviewed the C-119 program status at your facility on 21 through 25 November. However, the conditions reported by this group are not considered novel or unique in relation to your performance to date, but may more aptly be described as current and typical. Furthermore, although this group was specifically interested in only the C-119 program, this Headquarters is greatly concerned with all your aircraft unto which will evidently be accomplished under similar conditions.

3. The primary areas of deficiency, which are still major, despite your repeated previous assurances that adequate corrective action had, or would be taken in alleviation of the unsatisfactory conditions, are:

(a) Inability to forecast and maintain realistic manufacturing schedules for even short periods of time.

(b) Lack of control of labor. Although it is recognized that your labor-management contracts may be of somewhat unique nature, the fact remains that the Government must demand that the contractor exercise full responsibility for effective usage of the manpower assigned to performance for, and reimbursable under, the contracts. The continued reports of idle manpower in your plant have resulted in a special manpower survey at your facility which started November 24, 1952. If the findings of this survey indicate significant manpower wastage after repeated previous warnings, the Air Force staff at your plant will be instructed to take immediate and stringent action to disallow costs arising therefrom.

(c) In direct relation to the foregoing, there seems to be an indication that your firm has a tendency to substitute sheer numbers of personnel to perform tasks when quality of personnel on intelligent revisions of management practices might be a considerably more economical solution. Your ratios of overhead to direct personnel in many cases are completely inconsistent with the normal aircraft

industry sources. It is emphasized that efficient manpower utilizations must apply throughout your plant and not solely to direct workers.

(d) Overall product quality control status is not in a healthy condition, despite a grossly high ration of inspectors to direct workers. The problem appears to be deeper than just physical inspection of work. In addition to continuing high levels of scrap generated in critical fabrication operations, such other factors as inadequate control of work in process and poor interdepartmental coordination are also causing an adverse effect on end item quality.

4. The foregoing cited conditions are already long overdue for a satisfactory solution and their cumulative effect cannot fail to adversely affect cost of performance on the contracts which have been awarded either directly, or as major subcontracts, to your firm. Prior awards, as well as any consideration of KMC for future aircraft business, were made on the supposition that acceptable management practices would be available to support reasonable cost operations. There has been no deviation from this condition, nor is any contemplated.

5. Although the Air Force has, and will continue to offer advice and guidance on specific plant-operation problems, it is emphasized that management is the sole and final responsibility of the contractor. It is requested again that you give the KMC and Chase Aircraft Co. airplane programs your personal and continuing attention fully utilizing the complete resources available to you for correction of the deficiencies in these programs.

6. It is the intention of this command to expend increased and intensified administrative effort to your airplane contracts in the immediate future including whatever assistance the Air Force may justifiably render to insure the success of your operations. However, it is reiterated that the contractor must take full initiative in this effort. If subsequent reviews in the near future do not indicate reasonable progress on your part, the Government may be forced to take more severe action to protect the interest represented in contracts awarded to you.

MARK E. BRADLEY, JR.,  
Major General, USAF,

Director of Procurement and Production  
(For the commanding general.)

#### EXHIBIT D

*Incurred costs, C-119 airplane, Kaiser Manufacturing Corp., Willow Run*

	To Oct. 31, 1952			To Jan. 31, 1953		
	Production costs	Nonrecurring costs	Total	Production costs	Nonrecurring costs	Total
Subject to fee:						
Production material.....	\$14,257,398		\$14,257,398	\$18,467,012		\$18,467,012
Subcontractors' cost.....	16,263,548	\$6,202,711	22,466,259	20,870,658	\$6,613,384	27,484,042
Direct labor.....	9,626,947		9,626,947	13,633,887		13,633,887
Manufacturing expense.....	31,961,464	12,748,117	44,709,581	41,130,849	12,748,117	53,878,966
Engineering expense.....	3,587,106		3,587,106	3,626,942		3,626,942
Project tool and design service.....		13,616,048	13,616,048		13,166,962	13,166,962
Portable tools and equipment.....	695,767	695,767	1,391,534	719,786	719,787	1,439,573
Plant rearrangement.....		931,412	931,412		933,462	933,462
Administrative expense.....	2,567,507	1,254,766	3,822,273	3,430,029	1,254,766	4,684,795
Home-office expense.....	696,058	239,670	935,728	931,077	239,670	1,170,747
Contract termination.....		91,673	91,673		639,279	639,279
Subtotal.....	79,655,795	35,780,164	115,435,959	100,810,240	36,315,427	137,125,667
Not subject to fee:						
Partial occupancy costs.....		2,041,682	2,041,682		2,037,900	2,037,900
Computed liability audit adjustment.....					282,519	282,519
Earned fee.....	2,982,870	1,340,874	4,323,744	3,349,549	1,340,874	4,690,423
Total costs incurred.....	82,638,665	39,162,720	121,801,386	104,159,789	39,411,682	143,571,471

<sup>1</sup> U. S. Air Force resident auditor advises that this figure may be decreased by approximately \$50,000.

## EXHIBIT E

*C-119 production accomplishment as of Jan. 31, 1953, Kaiser Manufacturing Corp., Willow Run*

TABLE I

Lot No.	Quantity of aircraft in lot	Order or assembly-parts list percentage, complete as of Jan. 31, 1953 (parenthetical figure as of Oct. 31, 1952)		Equivalent airplanes
1-A.....	2	100	(100)	2.0
1-B.....	3	100	(100)	3.0
1-C.....	9	100	(98)	9.0
2.....	16	99	(87)	15.9
3.....	16	80	(50)	12.8
4.....	25	45	(25)	11.3
5.....	34	17	(7)	5.8
6.....	25	6	(0)	1.5
7.....	20	0		0
	159			60.3
From table II below, add work-in-process equivalent.....				.6
Total.....				60.9

TABLE II

Lot	Quantity of semi-processed orders (2)	Ratio of orders to (2) total orders for lot (12,000)	Number of aircraft in lot	Equivalent aircraft
1 and 2.....	40	0.003	30	0.09
3.....	54	.004	16	.06
4.....	129	.01	25	.25
5.....	944	.08	34	2.7
6. Effect estimated in table I.....				3.1

NOTE.—Assuming fabrication to be 20 percent of total effort, equivalent airplanes represented by uncompleted orders in process is  $(0.20 \times 3.0) 0.6$ .

TABLE III

1. Total equivalent airplanes produced as of Jan. 31, 1953.....	60.9
2. Total equivalent airplanes produced as of Oct. 31, 1952.....	45.9
3. Total equivalent airplanes produced in 90-day period.....	15.0
4. Acceptances accomplished in same period.....	11.0
5. Acceleration effort generated in equivalent ships.....	4.0

EXHIBIT F

Kaiser Manufacturing Corp., estimated cost comparisons, 159 C-119 airplanes

	Oct. 31, 1952	Jan. 31, 1953
Production costs:		
Production material.....	\$18,375,312	\$18,115,665
Subcontractors' costs.....	38,368,449	35,774,523
Direct labor.....	24,533,850	23,991,033
Manufacturing expense.....	63,225,555	65,070,750
Engineering expense.....	7,158,657	6,180,455
Portable tools and equipment.....	695,784	698,487
Administrative expense.....	4,799,574	5,720,343
Home-office expense.....	1,440,540	1,655,656
Total production costs.....	158,597,730	157,086,912
Nonrecurring costs (including major subcontractors):		
Project tools and purchased design.....	19,282,566	21,678,060
Portable tools and equipment.....	695,784	698,487
Plant rearrangement.....	19,866,255	10,236,615
Contract-termination costs.....	935,079	639,339
Total nonrecurring costs.....	40,779,684	42,252,501
Total costs.....	199,377,414	199,339,413
Fixed fee.....	6,604,383	6,667,983
Estimated contract requirements.....	205,981,797	206,007,396
Unit requirements.....	1,295,483	1,295,644

EXHIBIT G

C-119 production outlook

Schedules	1952		1953											
	November	December	January	February	March	April	May	June	July	August	September	October	November	December
Contract.....	4	11	12	11	12	12	12	12	12	12	12	12	9	6
Jones.....	1	4	7	7	8	9	10	12	16	16	15	17	14	13
Shop complete.....			7	7	8	9	10	13	17	16	16	16	16	5

1. With possible minor compensating adjustments, the above shop completion and Jones acceptance schedule appear feasible from observation of actual performance to date, as follows:

(a) Remaining fabrication and subassembly work is generally a slight bit ahead of schedule.

(b) The last May aircraft in major assembly on schedule.

(c) The last April aircraft in final assembly on schedule.

(d) Ship No. 34 out of factory ahead of schedule.

(e) Final assembly hours (on airplanes from 100 percent KF fabricated parts) experiencing an extremely steep progress curve, on the order of 40,000 hours at end of lot 2, probably 15,000 hours or less at end of lot 3.

## EXHIBIT H

Combined C-129 incurred costs—Contract AF 33(038)-22446 through Jan. 31, 1953

Costs subject to fee	Chase Aircraft Co., Inc.	Kaiser Manufacturing Corp.	Total incurred costs	Production costs	Nonrecurring costs	Starting load costs
Production material.....	\$3,286,422.26	\$13,080.64	\$3,279,452.90	\$3,279,452.90		
Subcontract costs.....	4,259,448.01		4,259,448.01	4,259,448.01		
Freight in and out.....	78,509.46		78,509.46	78,509.46		
Direct production labor.....	1,019,813.70	364,966.02	1,384,779.72	1,384,779.72		
Manufacturing expense.....	1,613,938.09	126,186,740.05	17,750,678.14	2,544,601.44	\$84,386.81	\$5,127,855.69
Total manufacturing.....	10,238,131.52	6,514,736.71	16,752,868.23			
Production design subcontracted.....	7,951.16		7,951.16		7,951.16	
Engineering direct charges.....	26,467.16	75,938.49	102,405.65		102,405.65	
Direct labor engineering.....	2,128,672.39		2,128,672.39	9,337.72	2,119,334.67	
Engineering overhead.....	2,130,906.34	1,692,847.95	3,823,754.29	1,820,260.06	2,003,494.23	
Total engineering.....	4,293,997.05	1,768,786.44	6,062,783.49			
Tooling material.....	333,819.70		333,819.70		333,819.70	
Direct charges tooling.....	10,665.97		10,665.97		10,665.97	
Subcontract tooling.....	20,905,096.22		20,905,096.22		20,905,096.22	
Direct labor tooling.....	605,285.15		605,285.15		605,285.15	
Tooling overhead.....	1,113,466.41	888,903.97	2,002,370.38		2,002,370.38	
Total tooling.....	22,058,322.45	888,903.97	23,947,226.42			
General administration and home office.....	1,380,256.36	693,391.27	2,072,647.63	1,027,718.99		1,024,928.64
Unrecorded liabilities.....	2,302,924.19	6,166.50	2,309,090.69		2,302,924.19	
Total incurred costs.....	41,232,632.57	1,937,985.19	43,170,617.76	14,404,108.30	30,567,724.13	6,152,785.33
Earned fee, 5% percent of \$31,060,789.11.....	1,463,346.70	1,403,346.70	2,866,693.40			
Total incurred costs and fee.....	42,695,979.27	11,275,331.89	53,971,311.16	14,404,108.30	30,567,724.13	6,152,785.33

1 \$51,124,617.76 includes \$93,829.65 plant rearrangement, no fee item.

2 KMC manufacturing includes portable tools (\$84,886.37) and plant rearrangement (\$93,829.65).

3 The fee, in the amount of \$2,866,693 is estimated and subject to adjustment to actual determined figures for the period ending Jan. 31, 1953.

EXHIBIT I

Chase Aircraft Co., Inc., consolidated with major subcontractor Kaiser Manufacturing Corp., estimated cost comparisons—244 C-123 airplanes

	Negotiated costs	Jan. 31, 1953
<b>Production costs:</b>		
Production material.....	\$22,308,348	\$17,517,736
Subcontractors costs.....	43,470,093	44,470,052
Direct labor.....	20,232,459	22,566,584
Manufacturing expense.....	141,035,580	50,239,112
Production engineering.....	7,561,134	5,294,800
Administrative expense.....	16,265,008	6,049,004
Home office expense.....		1,486,204
<b>Total production costs.....</b>	<b>140,872,712</b>	<b>147,624,392</b>
<b>Nonrecurring costs (including major subs):</b>		
Project tools and purchase designs.....	24,771,342	30,778,696
Basic engineering.....	4,337,905	4,733,600
Plant rearrangement.....	17,409,059	7,450,052
<b>Total nonrecurring costs.....</b>	<b>36,518,306</b>	<b>42,960,348</b>
<b>Total costs.....</b>	<b>177,391,018</b>	<b>190,284,740</b>
<b>Fixed fee.....</b>	<b>9,662,888</b>	<b>9,662,888</b>
<b>Estimated contract requirements.....</b>	<b>187,053,906</b>	<b>200,247,628</b>
<b>Unit requirements.....</b>	<b>766,614</b>	<b>820,687</b>

<sup>1</sup> The amount included in "Rearrangement expense" includes transfers of funds (estimated by AMC) from "Manufacturing, administrative, and home office expense accounts" to cover nonrecurring starting costs.

<sup>2</sup> Includes additional tooling to meet peak rate increase of 10 per month from 25 to 35.

EXHIBIT J

C-123 SCHEDULE FORECAST

The C-123 schedule, currently called for in WA-20, provides for delivery of the second and subsequent airplanes (243) from Willow Run on the following schedule which represents an approximate 6 months' slip from the negotiated contract schedule and increases the contract schedule peak of 25 per month to 35 per month so as to attain total inventory requirement of C-123 airplanes (on contract and pending) at a date approximately the same as that which would have been attained had this program not been subject to prior slippages.

1953		1954—Continued	
September.....	1	June.....	19
October.....	1	July.....	22
November.....	2	August.....	25
December.....	3	September.....	28
		October.....	31
		November.....	34
		December.....	26/9
1954		1955	
January.....	5	January.....	35
February.....	7		
March.....	10		
April.....	13		
May.....	16		

The additional increment of 10 airplanes per month follows the same initial acceleration and to attain 35 per month instead of 25 per month is not considered a major problem, provided the initial delivery rate can be met.

This schedule is an extremely tight one, both from the standpoint of initial delivery requirement and subsequent acceleration. As of the date of this survey, it still appears to be attainable insofar as Willow Run effort is concerned, and the survey team recommends that no change be made, unless subsequent review indicates some slippage in detail schedule elements which would prevent its attainment. Factors pertinent to this recommendation are:



- (a) Cost forecasts are highly dependent upon schedules. It will be cheaper for the Air Force to pay for overtime and other premium production make ready expense now than to allow a general slip in this schedule with the attendant increase in overhead incurrence over an extended time period.
- (b) A realistic tool tryout program based on schedule requirement can meet the manufacturing requirement dates for the balance of the Willow Run unscreened tools.
- (c) Willow Run assemblies for the No. 2 airplane are on schedule, and if West Trenton promise dates are met, fixture loading will be substantially on schedule. The subsequent manufacturing and assembly schedule allows reasonable time for assembling of a first airplane.
- (d) That portion of detail manufacture required for lot 1 and 2 airplanes (4 and 10 airplanes respectively) is on or ahead of schedule.
- (e) C-119 lots 6 and 7 are being combined in fabrication to allow additional machine loading capacity for C-123 parts.

It is recommended that a detail production progress reporting system, preferably in graphic form be established by the C-123 project office which will portray both West Trenton and Willow Run progress on an integrated basis against the required index schedule. This should be reviewed on not less than a monthly basis from the date of this survey and substantiated by actual plant verification as necessary. By such action the continuing supportability of this schedule can be determined and a proper decision made as to whether a subsequent reschedule is necessary.

#### EXHIBIT K

##### CORRECTION OF PRIOR DEFICIENCIES

The following is a list of deficiencies summarized by the November 1952 survey team for which specific corrective action was requested of the contractor in exhibit C, along with a brief summary of corrective action taken as of the date of this survey.

##### 1. Contractor's inability to forecast and maintain realistic manufacturing schedules

Substantial progress has been made in correcting this deficiency. The so-called Jones schedule which is the pickup schedule laid down by Kaiser Manufacturing Corp. in early January 1953 to allow completion of the C-119's by December 31, 1953, appears to be realistic in relation to their attained and potential shop performance. As of the date of this survey, the contractor was on or slightly ahead of this schedule in all manufacturing departments. Realistic scheduling ability is generally dependent upon proper interpretation of past performance on similar jobs. The contractor now has methods of reporting shop performance and appears to be willing to use this factual information rather than quoting impossible target schedules. Realization of schedules depends upon an adequate production control system with sufficient check points therein to forecast and isolate delay factors early enough to allow corrective action. Continuing improvements in this production control system are being made although its current status is probably acceptable as a minimum. The C-119 program will still be accomplished more on a "brute force" shop loading basis than is desirable, since the past sins cannot be entirely washed out by a relatively newly installed system. The C-123 production planning, scheduling and control requirements should, however, have the benefit of a workable system which can maintain balanced shop loading. General relations with the collective bargaining group give the general appearance of overall improvement.

##### 2. Lack of control of labor and overmanning

This prior deficiency has been subject to major corrective action and can be subject to still further improvement. A greatly accelerated tempo of production operations is visible in the factory, and this observation is readily verified by comparison of work output versus direct labor available. The slowdown of deliveries to fill up the factory pipeline has had a major effect since the shop is now pushed from fabrication and there are no open work stations. By rigid enforcement of move schedules and a steady availability of parts and assemblies, the available labor is forced to work by schedule which probably produces better labor utilization than any amount of direct supervisory pressure in this particular shop, if not in general.

The following tabulation portrays the general reduction in manpower in the facility during the 90-day interval between the two Headquarters AMC surveys. It is interesting to note that automotive production has remained practically constant, C-119 production has substantially doubled and the C-123 started in fabrication concurrent with this personnel reduction:

	As of Nov. 4, 1952		As of Feb. 3, 1953	
	Automotive	Aircraft	Automotive	Aircraft
Direct.....	2,301	3,885	1,595 (-706)	3,486 (-399)
Indirect.....	4,436	8,610	3,884 (-552)	7,650 (-960)
Total.....	6,737	12,495	5,479 (-1,258)	11,136 (-1,359)
Ratio indirect direct.....	1.93	2.22	2.44	2.19
Total employment.....	19,232		16,615 (-2,617)	

NOTE. -- Parenthetical figures show reduction in 90 day period surveyed.

### 3. Substandard overall product quality control

Specific actions accomplished to improve quality levels are as follows:

(a) Application of floor inspection to each operation on a "first-piece" basis before running the entire lot of part. Although about one-half of 300,000 parts in process were built prior to the institution of the system, a noticeable effect on parts quality has already been evidenced by this inspection breakdown. The so-called 100 percent crib inspection, (a complete finished part inspection on a lot sampling basis) will be continued as a check on the successive operation inspection, but may eventually be reduced in scope as the earlier inspection gains full force. It appears also that lower inspection skills can be used on such an inspection breakdown. Since application of this inspection philosophy, initial rejection rates have risen which does not indicate poorer parts being produced, but does indicate that defective items are being found much earlier in the manufacturing cycle with consequent reduction in rework and repair cost. The scrap rate has reduced from nearly 10 percent to about 6 percent.

(b) Tool quality and coordination, which basically determines parts quality has improved to a minimum acceptable level on the C-119 program more or less by schedule generated force. It appears that further improvements on the C-119 will not be great due to the limited production run outstanding. The C-123 tool program holds promise of causing much less trouble than has the C-119, because of the following features:

(1) Tool subcontracts were for a complete family of tools required to produce a detail part, and wherever possible, the tool vendor was required to furnish the tool family with associate drawings and templates for build of a proof part from the tool at a central point.

(2) Approximately 5,000 of the 9,500 detail parts required have the first lot run completed and 1,100 more are in first fabrication run. The remaining tool families are being subjected to a rigid screening check with priority geared to manufacturing sequence requirements before release to shop.

(3) The assembly tools appear to be of excellent quality and the mastering program should assure assembly coordination. The only deficiency in this area appears to be the major concentration of work in the fuselage assembly fixtures which will have to be subject to continuing scrutiny to determine if further subassembly breakdown can be made.

(c) Tool control problems have been greatly lessened by the simple expedient of storing detail tools for a particular cost center in a crib immediately adjacent to the using shop. Furthermore, all templates required for a shop order are released with the order and material and stay with the job until inspection is complete in the 100 percent crib.

(d) The "cabbage patch" of semiprocessed and unidentifiable parts has been cleaned out. To prevent its recurrence, the production control system has gone to the extreme of providing individual pasteboard tote boxes for all parts in process, with the shop orders and templates traveling in the same box.

EXHIBIT L

PROBLEMS OF THE GENERAL NATURE CONCERNING THE CHASE-KMC-KT PROGRAM

1. The question of the financial capability of Kaiser Manufacturing Corp. and Chase to perform, as related to the overall Kaiser-Frazer financial adequacy, cannot be determined until or unless balance sheets and profit and loss statements of December 31, 1952, and January 31, 1953, are made available to AMC. On Friday, February 27, Messrs. Miller (vice president) and Hollis (comptroller) deferred furnishing such figures pending outcome of directors' meetings being held in New York City.

Attention is called to the fact that certain allocable overhead (manufacturing, administrative, and home office expense) is charged to automotive and aircraft on the basis of direct man-hours expended in those divisions. Reduction of automotive man-hours because of one 2-week and one 1-week shutdown or curtailment of operations in January and February 1953 are reflected in the higher percentage of overhead chargeable to aircraft operations during those months. Future curtailment of automotive production will have a similar effect on aircraft costs.

In view of the continuing losses in the automotive division, and the consequent shrinkage of a large part of the value of the Kaiser-Frazer guaranty, additional working capital is required to insure completion of existing contracts by Kaiser Manufacturing.

2. *Chase organization.*—Proper performance of the C-123 contract requires complete administration of all aspects of the program at the major production site, Willow Run. This administration must be conducted in accordance with good business practices. In the Chase organization the board of directors, by virtue of the certificate of incorporation and corporate bylaws, is charged with managing the affairs and business of the corporation. The board is composed of 8 members, 4 controlled by the 51 percent ownership, Mr. Stroukoff, and 4 by the 49 percent ownership, the Henry J. Kaiser Co. In accordance with the corporate bylaws and certificate of incorporation, in the event of a vacancy in the board of directors, the replacement for the vacancy shall be appointed by whichever of the stockholders controlled the vacating member. (This arrangement is effective until September 1954, and Chase has agreed to extend the arrangement through performance of the contemplated follow-on contract).

The president of the corporation, Mr. Bedford, executes the policies of the board of directors. Mr. Bedford is also a director appointed by the Kaiser ownership.

The board of directors was unable to agree on a corporation organization chart until the Kaiser interests recently agreed to accept an organization proposed by Mr. Stroukoff.

Mr. Bedford requested a legal opinion of the Chase counsel, Mr. Wood (who is also a Stroukoff-appointed director) as to whether he, as president, might establish an organization of his own liking in the absence of agreement by the board of directors. Mr. Wood provided him a written opinion to the effect that the president did not have the prerogative of establishing an organization to his own liking in the absence of board approval. Subsequently, Mr. Bedford has obtained a written legal opinion from the counsel of the Kaiser 49 percent ownership indicating that the opinion of the Chase attorney is in error and that Mr. Bedford would be exercising proper prerogatives if he should draw up his own organization chart.

The organization chart drawn up by Mr. Stroukoff was presented by the Chase Co. to the local Air Force at Willow Run for recommendations. Chief, Central Air Procurement District and the Air Force plant representative reviewed the organization chart and the contract and decided that the organization chart submitted did not comply with the terms of the contract, in that actual administration of all aspects of the production program would not be centered at Willow Run. Consequently, he instructed the administrative contracting officer to write Chase and advise them to submit an organization chart by March 28 which will indicate that all phases of the production program will be controlled at Willow Run. One of the agreements between the Air Force and Chase when the C-123 contract was awarded was that the Kaiser interests would furnish proper management of the Chase organization. It was pointed out to Mr. Bedford that an even split of the board and control of the presidency by Kaiser interests indicate that sufficient tools are available to the Kaiser interests to manage the Chase organization. Mr. Bedford indicated that the Kaiser interests are reluctant to exercise those prerogatives which are being resisted by the 51-percent ownership for fear of a stockholders' suit. The Kaisers feel that a stockholders' suit at

present will jeopardize their position in certain negotiations being conducted in regard to a merger with Willys-Overland.

3. *Facilities.*—When Willow Run was set up to produce C-119 aircraft, approximately \$12½ million was made available for Government facilities to produce 93 C-119 aircraft per month. When the C-119 program was reduced and the C-123 aircraft was phased in, it was with the understanding that C-119 facilities would be utilized where possible. An additional \$1½ million was made available to Kaiser-Frazer for facilities at Willow Run and slightly less than a million dollars was made available to Chase for facilities at West Trenton. This distribution was based on the understanding existing at the time distribution was made that no production would be accomplished at West Trenton. Subsequently, this headquarters recommended favorable consideration of a certificate of necessity for construction of 163,000 square feet of new brick and mortar facilities by Chase at West Trenton. The certificate of necessity was eventually approved. This headquarters and Chase have agreed that production of all doors, ramps, hatches, etc., for the C-123 will be accomplished at West Trenton. As a result, Chase has recently requested \$900,000 worth of additional facilities. In the meantime, approximately \$4 million of the original \$12½ million provided Kaiser-Frazer at the inception of the C-119 program was declared surplus. When Chase requested a certificate of necessity for the new building at Trenton, it was with the understanding that the new building would be sufficiently completed prior to June 30, 1953, so that the presently occupied Navy facilities at Trenton could be vacated by that date. As of February 20 the construction contract had not yet been let for the new facility and it is apparent that it will not be ready by June 30, 1953. It is expected that Chase will request another extension of occupancy of the Navy facilities. If this is the case, it appears that the production facilities required by Chase will have to be installed in the Navy facilities and subsequently removed and reinstalled in the new facilities if the West Trenton C-123B assistance program schedules are to be met.

A substantial portion of the facilities money allotted to West Trenton has been expended for a low volume type of production tools which will not be suitable for any quantity production. This type of machine tools will now have to be superseded by the tools contemplated in the \$900,000 presently requested by Chase.

4. *Production planning.*—Since the inception of the C-123 contract, the Chase production plan has changed many times. At one time nose sections and flaps were scheduled to be produced at West Trenton. At another time outer panels and flaps were scheduled to be produced at West Trenton, with the rest at Willow Run, except for other normal subcontracting. Then no production was to be accomplished at Trenton. Next the plan was for five sets of priming details to be produced at Trenton. Now the plan is for certain major components for a few airplanes to be constructed at Trenton, in addition to the priming details, and for continuing production to be accomplished on the doors, hatches, ramps, etc., mentioned above. Each time the basic production plan was changed, obviously the program has acquired a new direction. Realignment of facilities has been necessary. Personnel, purchasing, and material requirements have been basically changed. All of these difficulties, plus the duplicate purchasing facilities mentioned above, can be traced back to the fundamental organization problems.

5. *New C-123 programs.*—Headquarters, USAF has directed procurement of a prototype C-123 in a special configuration for E. and E. and ARS missions. A production quantity of 128 of these aircraft has been mentioned in correspondence. The firmness of this requirement should be reviewed at this time and if the requirement does exist, a determination must be made as to where (Willow Run or Trenton) and how (modification or new production) the aircraft shall be built. In addition to the prototype airplane mentioned above, another prototype, the pantobase configuration, is being ordered by ARDC. Whether to build the prototype airplanes by new production or modification methods must be resolved.

6. *Air Force Administration.*—At Chase, West Trenton, from August 1951 until the present there have been six different contracting officers assigned. Most of these changes were due to circumstances beyond the control of the Air Force. It is recommended, however, that, due to the complex situation outlined above, special emphasis be placed on selecting the appropriate personnel and obtained continuity in the administration of this program, both at Trenton and at Willow Run.

7. *C-123B second source subcontract program as related to PAIP.*—Although current C-123 subcontract structure is sufficient to support all production up to 35 per month rates, the PAIP requirements for up to 200 per month rates become critical in relation to landing gear and nacelle requirements. Headquarters,

AMC had previously directed that Chase obtain second subcontract source on these assemblies but to date the contractor has accomplished no definitive action in this regard. It is recommended that the AMC requirement for this second source be withdrawn since a major cost increase would be involved for such a program and this would represent an increasingly unwise and premature expenditure of funds in the event of any further program slippages on the C-123.

DOCUMENT NO. 3

MAY 4, 1953.

Subject: Omaha package, its origin as regards K-F's C-119 program.  
To: Resident Auditor, Central Air Procurement District, Willys Motors, Inc., Willow Run, Mich.  
(Attention: Mr. W. S. Sprague)

In response to your recent inquiry, you were informed that following K-F's further study of the subject matter, you would be advised of their findings.

Of the present K-F organization, Mr. L. E. Jagnow, K-F's coordinator of Government-owned facilities, is the one most qualified to advise concerning the origin of the "Omaha package," as regards K-F's C-119 program.

As he recalls, it was at a meeting in late December 1950, following the award of K-F's letter supply contract AF 33 (038)-18481 that K-F was apprised of the existence of an industrial mobilization plan. The meeting was held at Wright Field in Colonel Andrews' office who, at the time, was head of the Facilities Branch. The meeting was attended by Mr. Jagnow and Mr. Harvey Smith (formerly K-F's manager of aircraft operations) and other K-F management personnel.

Mr. Jagnow recalls that at the conclusion of the meeting, Colonel Andrews showed Mr. Smith four volumes of an industrial mobilization plan prepared by Fairchild Aircraft Corp. and lent them to Mr. Smith for initial orientation work and study in connection with K-F's program.

On January 10, 1951, at Wright Field, Mr. Paul Packard, Civilian Chief, Airframe and Engineering Branch, advised Mr. Jagnow concerning Fairchild's contract with the Air Force covering the Omaha study. Mr. Packard advised that under the contract, Fairchild was to prepare and maintain current the necessary technical data, prints, surveys drawings, reproducible, and other items covering all phases of a plan to activate an aircraft installation at Omaha, Neb. He advised that there were 18 4-drawer files of the technical data at GAP No. 1—Omaha, Neb. It was Mr. Packard's thought that the above information would be helpful to K-F. Accordingly, he advised that he was issuing instructions to ship the files to Willow Run and also that he was issuing instructions to Fairchild and to the Air Force accountability officer at Hagerstown to ship any other information applicable to the Omaha study to K-F at Willow Run.

From the above and to the best of the knowledge of those whom we have been able to contact, K-F did not at any time make a direct request for the "Omaha package." Rather, it seems that they gratefully accepted that which was made available to them through the offices of Colonel Andrews and Mr. Packard.

Apparently, in accordance with Mr. Packard's above-mentioned instructions, the "Omaha package" was shipped to K-F at Willow Run. The complete package was received as follows:

(a) United States Government Waybill No. WX-8604623, 83 pieces, records, received January 25, 1951.

(b) Hagerstown shipment No. 1 received January 30, 1951, delivered by C-119, Colonel Cleveland.

(c) Hagerstown shipment No. 11, FAD shipping order No. 25680, received April 30, 1951.

A meeting held at Willow Run on May 21, 1951, was attended by the following:

AF PERSONNEL

K-F PERSONNEL

Maj. C. F. Barclay, contracting officer	John Hallett, vice president
Maj. R. C. Ulrey, AF plant representative	M. Miller, vice president
Capt. F. P. Bretney, administrative contracting officer	S. A. Girard, vice president
Lieut. Gen. G. Whipple, project officer	H. V. Lindbergh, vice president
Paul Pate, civilian employee	L. K. Covelle, K-F Wright Field representative
	S. F. Patyrak, contract administrator

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At the meeting, it was agreed "All information supplied by USAF to K-F from industrial mobilization planning file shall become a part of engineering data and manufacturing data, along with such data as will be received from Fairchild under the technical assistance agreement. No separate file shall be maintained. A letter confirming the above agreement reached with Captain Packard of USAF is to be written by K-F to USAF through contracting officer." The above quote was excerpted from the minutes of the above meeting which were distributed to both Major Ulrey and Captain Bretney. Apparently the letter was not written.

As the TAA data applicable to subsequent planes started to arrive at Willow Run, the "Omaha package" data became less useful and finally was, in effect, entirely supplanted by the more current data furnished under the TAA.

In view of the agreements outlined in the minutes of the above meeting of May 21, K-F proceeded until June of 1951 on the basis that they would not be required to reassemble the "package." At a meeting of June 13, 1951, at Willow Run, in compliance with a request from FAD's Mr. Landers, Major Barclay instructed that the "package" be reassembled for FAD's use in connection with the then proposed FAD Chicago C-119 facility. Because the AMC-FAD arrangements to reactivate the FAD Chicago C-119 facility were canceled, FAD did not take custody of the reassembled "package." Rather, it remained at Willow Run until July 1952.

On May 15, 1952, K-F wrote to Colonel Ulrey requesting instructions regarding disposition of the reassembled "package". On June 23, Captain Bretney responded with instructions to ship the data to the Birmingham modification center. As explained in K-F's August 6 letter, the "package" was shipped on July 2 and 3 in accordance with the captain's instructions. The shipments were made under shipping officers vouchers No. CV-53-1 and CV-53-2.

It is to be noted that as a result of the normal usage (wear and loss) K-F was not able to completely reassemble the "package." The shortages were indicated both in Captain Bretney's June 23 letter and in K-F's letter of August 6, 1952. The July 2 and 3 shipments were comprised of the complete "Omaha package" excepting the above-mentioned shortages.

In conclusion it can be said that the "Omaha package" served its purpose—it provided K-F with some of their earliest preliminary data applicable to FAD's early C model C-119 airplanes. Similarly, the technical assistance agreement served its purpose—at the outset it provided K-F with a source of more complete and more current C-119 data. It included all of the engineering changes which had then been approved. Subsequent data furnished under the technical assistance agreement supplemented and revised portions of the earlier information to comply with subsequent engineering changes. Further, the technical assistance agreement provided assistance not included in the "package"; i. e., priming parts, exchange of personnel, and other tangible assistance.

Any further questions which you may develop will be given our prompt attention.

S. F. PATYRAK,  
*Defense Contracts Administrator*  
 (For Willys Motors, Inc.).

## DOCUMENT NO. 4

*Kaiser Manufacturing Corp., Willow Run, Mich.—Schedule of costs incurred on contract AF33(038)–18481*

[Period: Dec. 20, 1950, through June 13, 1953]

	Accumulated costs through May 31, 1953	Estimated costs incurred, June 1 to 13, 1953	Total estimated costs incurred through June 13, 1953
Direct reimbursement costs:			
Production material.....	\$17,942,755.98		\$17,942,755.98
Subcontractor's costs.....	34,010,062.39		34,010,062.39
Direct labor.....	18,284,097.71	\$510,000.00	18,824,097.71
Project tools.....	13,357,976.07		13,357,976.07
Portable tools and equipment.....	1,391,462.47		1,391,462.47
Plant rearrangement.....	934,708.18		934,708.18
Contract termination.....	647,974.45		647,974.45
Voucher register charges.....		911,956.21	911,956.21
Subtotal.....	86,509,032.25	1,451,956.21	88,020,988.46
Overhead costs:			
Manufacturing expense.....	64,368,331.69	1,192,860.00	65,561,191.69
Engineering expense.....	3,932,576.15	52,170.00	3,984,746.15
Administrative expense.....	5,894,169.84	128,310.00	5,932,479.84
Home office expense.....	1,510,463.66	36,660.00	1,547,123.66
Subtotal.....	75,615,541.34	1,410,000.00	77,025,541.34
Other costs:			
Partial occupancy costs.....	2,028,737.20		2,028,737.20
Total incurred costs.....	164,213,310.79	2,861,956.21	167,075,267.00
Fixed fee accrued.....	5,501,894.00		5,501,894.00
Total incurred costs and accrued fee.....	169,715,204.70	2,861,956.21	172,577,161.00

<sup>1</sup> Voucher register totals cannot be readily broken down by cost element at this time. The total includes production material, subcontractor's costs, and overhead costs.

## DOCUMENT NO. 5

*Kaiser Manufacturing Corp., Willow Run, Mich., Schedule of costs incurred on contract AF 33(038)–18481*

[Period: Dec. 20, 1950 through May 31, 1952]

	Accumulated costs through May 31, 1952
I. Costs subject to fee:	
Production material.....	\$11,942,117.10
Subcontractor's costs.....	13,291,589.40
Direct labor.....	3,748,075.31
Manufacturing expense.....	29,772,754.35
Engineering expense.....	2,531,910.31
Project tools and purchased design services.....	12,597,933.40
Portable tools and equipment.....	1,420,260.69
Plant rearrangement (ordinary).....	686,102.87
Administrative expense.....	2,539,527.95
Home office expense.....	653,683.36
Contract termination costs.....	347.15
Subtotal.....	79,184,301.89
II. Costs not subject to fee:	
Partial occupancy costs.....	1,699,768.61
Unaudited liabilities.....	1,598,810.78
Subtotal.....	3,298,579.39
III. Accrued fee.....	3,183,763.00
IV. Total incurred costs and accrued fees.....	85,666,644.28

DOCUMENT NO. 6

KAISER-FRAZER CORP.,  
Willow Run, Mich., July 2, 1951.

Subject: Conditions Causing Excessive Costs.

To: AF Plant Representative, Central Air Procurement District, Kaiser-Frazer Corp., Willow Run, Mich.

1. A system survey in process by the resident auditor, Auditor General, USAF, at Kaiser-Frazer Corp., Willow Run, Mich., and the current audit of costs submitted for reimbursement by Kaiser-Frazer Corp. under prime contracts AF 33(038)-18481 and AF 33(038)-18485 discloses unfavorable conditions that, in the opinion of the resident auditor, USAF, result in excessive costs to the Government.

2. Unfavorable conditions are listed, in part, as follows:

(a) Factory employees tamper with time clocks and time clocks in many instances record from 1 to 2 hours later than the actual time.

(b) Factory employees damage clocks intentionally. In excess of 20 percent of the 130 clocks are continually in process of repair. On June 30, 1951 there were 24 clocks damaged.

(c) Employees avoid plant protection guards by climbing the fence.

(d) Factory employees on the first shift stop working approximately 30 minutes before the shift ends and the time to punch their timecards.

(e) Clock cards show many erasures, changes, and omissions of clock-time stamp. In correction of omission of clock time-stamp, in many instances the time is entered in pencil without authorized approval evidenced by initials or signature of authorized supervisory personnel.

(f) The contractor does not make attendance floor checks.

(g) Plant-protection guards are not stationed at the clock stands to prevent employees from clocking more than one clock card.

(h) Employee cannot be readily identified or badges are not properly worn.

3. The above conditions are submitted for the AF plant representative's information and attention, in accordance with AFR 175-36.

SIDNEY C. SOLOMON,  
Resident Auditor.

cc: Contracting officer, K-F Corp., AFAUDC-I.

DOCUMENT NO. 7

JULY 5, 1951.

Subject: Conditions causing excessive costs.

To: Kaiser-Frazer Corp., Willow Run, Mich.

(Attention: Mr. Stanley F. Patyrak, contracts administrator.)

Attached hereto is a copy of a letter dated July 2, 1951, on above subject. In regard to paragraph 2c of enclosed letter, it is suggested that the plant-protection guards at the gates be rotated at nonscheduled hours in order that the employees will not become familiar with a particular guard at a particular station.

In regard to paragraph 2e it is suggested that supervisory personnel be cautioned to use more diligence in pursuing this matter.

With reference to paragraph 2f it is recommended that attendance floor checks be made a standard routine function.

In reference to paragraph 2g it is recommended that additional plant-protection guards be hired to be stationed at the clock stands. It is understood that the cost of such additional guards is a proper charge under the supply contract.

RAY C. ULREY,  
Major, USAF, AF Plant Representative.



DOCUMENT NO. 8

KAISER-FRAZER CORP.,  
Willow Run, Mich., July 6, 1951.

Subject: Conditions causing excessive costs, Ulrey/ej/8414  
To: AF Plant Representative, Central Air Procurement District, Kaiser-Frazer Corp., Willow Run, Mich.

This will acknowledge receipt of your letter dated July 5, 1951, to which you have attached a copy of a letter from Mr. S. C. Solomon, resident auditor, dated July 2, 1951.

(1) With reference to paragraph 2 (a), (b), and (e) of Mr. Solomon's letter, we would like to discuss these matters as one related problem. It is the tampering with time clocks and its resultant damage, as mentioned in (a) and (b), which causes the majority of the errors in the clock cards mentioned in (e). In order to properly account for an employee's time, these errors must be manually corrected by the timekeepers, which corrections they have always been authorized to make. Timekeepers will be instructed to do their work legibly and more neatly, and to initial changes as they make them. In addition to the above, all time clocks will be tested prior to checkout time and any that have been thrown out of order will be made inoperative and the employees routed past a functioning time clock. Plant-protection officers will be on hand to assist in rerouting the flow of employees.

(2) With reference to paragraph 2 (c), which is the matter of installation of new fencing and the repair of old fencing, this subject was discussed as a matter of general plant security with the Air Force personnel early this spring. This item of fencing was submitted in the appendix to the facilities contract on June 29, 1951, for consideration by the Air Force and authorization for expenditure of funds. An early approval of this item will be appreciated.

With respect to repair of old fencing, we wish to inform you that we are immediately undertaking repairs to existing fencing as may be necessary.

(3) With reference to paragraph 2 (d), the factory management will insist that supervision keep all employees on their jobs until quitting time. (See attached memorandum from the Works Manager to Supervision.)

(4) With reference to paragraph 2 (f), our present procedure is that the timekeepers observe the ringing of clock cards, both in and out, at the clock stations, and receive, each day, a report from each foreman certifying the number of hours that the employee worked and the jobs on which he worked. The hours reported by the foreman are verified to the elapsed time recorded on the clock card.

We have felt that this system is adequate; however, since you apparently feel that attendance floor checks on the part of the timekeepers are necessary, we will study this matter and will be prepared to make a recommendation within two weeks.

(5) With reference to paragraph 2 (g), plant-protection officers will be stationed at the clock stations from 1 hour before quitting time to one-half hour after quitting time on all shifts and will be instructed to make every effort to stop violations of proper procedure.

(6) With reference to paragraph 2 (h), the corporation is currently in the process of securing new and larger picture badges which will be equipped with a clasp in order that they may be properly worn. Plant protection has been instructed that, when the new badge system is installed, all employees must display their badges properly or will be refused admittance to the plant; further, that badges must be properly displayed at all times when employees are within the plant.

(7) With reference to your suggestion that patrolmen be rotated, the following is the procedure currently in use by plant protection: Each plant guard is assigned to a new post each day when reporting for work. During the day, plant guards stationed on the gates alternate with those walking beats within the building. It is our feeling that this affords the maximum amount of rotation possible without the necessity of employing extra guards.

The Kaiser-Frazer Corp. shares equally the interest of the Air Force in adopting any policies or procedures which will keep the cost of production of aircraft to a minimum. We hope that the measures adopted, as outlined above, will satisfactorily answer the questions raised in your letter of July 5, 1951.

Sincerely yours,

S. F. PATYRAK,  
Contracts Administrator.

DOCUMENT NO. 9

INTEROFFICE CORRESPONDENCE

JULY 9, 1951.

To: All manufacturing supervision  
From: John Tacke, operations manager.  
Subject: Shop rule violations.

In August of 1950, we issued a bulletin regarding early quitting. Let us not forget the importance of this bulletin. We are again faced with the problem of early quitting and violation of other shop rules. The following abuses are occurring regularly:

- Quitting early.
- Lining up at the clock stations before quitting time.
- Jumping the fences.
- Ringling other employees' clock cards.
- Tampering with the time clocks.

Effective immediately, all supervisors are expected to carry out the following instructions:

(1) Concerning quitting work early, lining up at the clock stations before quitting time, and jumping the fences:

If a foreman has all of his employees so concentrated that he can see their individual stations, he is to instruct his employees to remain at their work station until the 5 minute whistle blows. An employee on relief can be instructed to return to his work station before the 5 minute whistle. An employee who fails to observe these instructions is to be warned with a written reprimand. A second violation will call for a 3 day disciplinary time off; a third violation, 1 week disciplinary time off; a fourth violation, discharge.

The foreman whose employees are distributed about the plant to the extent that he cannot visually supervise their actions, is to inspect his assigned clock station at least 3 times weekly on varying days prior to the 5 minute whistle. Any of his employees found in the vicinity of that clock station, or in other words away from their assigned work area, are to be given disciplinary action as in the preceding paragraph.

- (2) Concerning ringing other employees' clock cards:  
First offense, 2 weeks disciplinary time off; second offense, discharge.
- (3) Concerning tampering with the time clocks:  
First offense, 2 weeks disciplinary time off; second offense, discharge.

DOCUMENT NO. 10

INTEROFFICE CORRESPONDENCE

SEPTEMBER 18, 1951.

To: Mr. R. J. Jespersen, assistant controller, Mr. S. C. Solomon, resident auditor, USAF.  
From: J. F. Greenwald and Lt. R. E. Powers, USAF.  
Plant or office: Willow Run.  
Subject: Survey of canceled parts resulting in possible cancellation claims.

JOINT AUDIT SURVEY NO. 1

During the process of an audit of the purchasing department procurement practices, examination of certain purchase order files indicated that cancellations were in process.

Since these instances were numerous, it was decided to briefly study the cancellation files in production planning to determine—

- 1. Reasons for cancellation.
- 2. Volume of canceled parts.
- 3. Dollar volume of claims.

A study has been made to the extent indicated above, and the following facts were evidenced:

- 1. Requisitions were prepared and purchase orders placed committing for requirements as set forth in the "Omaha" bill of material to cover production requirements for 22 ships worth of purchased parts and 66 ships worth of raw materials, and also based on the assumption the entire plane would be fabricated at Willow Run. Progressive developments proved the "Omaha" bill of material

to be obsolete or incomplete, in part, thereby resulting in numerous cancellations of purchase orders.

2. To date, there are approximately 1,500 cancellation claims in file representing canceled parts, of which it is estimated approximately 47 percent are contributable to the "Omaha" bill of material.

An examination of a representative group of the claims in file revealed the following:

(a) No action has been taken, except to advise vendors to stop work, since there is no published procedure detailing the processing of claims.

(b) It was noted that claims are dated as early as March 1951.

(c) The stop order confirmation provides a space for the vendor to indicate a cost or no cost to Kaiser Manufacturing Corp. A substantial number of the confirmations indicate no cost; however, purchase orders may have been partially or entirely completed prior to issuance of the stop order. A group of such orders was tabulated and reveals parts valued at \$6,896.30 have been received at Willow Run, and \$6,457.62 of this amount has been included in public vouchers.

(d) A number of stop-work orders have not been confirmed, and the files indicate they have not been followed on a current basis to obtain confirmation.

(e) It was noted "returned-material orders" of a series used in automotive were used to return aircraft material to vendors.

3. Since procedures have not been invoked to permit further processing of claims, it is impossible to determine the dollar volume involved, except to the extent as explained in paragraph 2 (c) above.

The foregoing is presented for informational purposes; however, it is the intention of the accounting systems department in conjunction with the industrial engineering department to provide a procedure to conform with Air Force regulations to adequately process and administrate cancellation claims.

J. F. GREENWALD,

Director of Accounting Systems and Auditing.

R. E. POWERS,

Lieutenant, USAF.

Prepared by Lt. R. E. Powers, L. C. Fodal.

Cc: Messrs. J. L. Cook, E. M. Craig, S. H. Hailey, C. M. Hollis (2), O. E. Johnson, H. A. Koop (3), L. S. MacKay, S. F. Patyrak, A. L. Webb.

#### DOCUMENT No. 11

#### INTEROFFICE CORRESPONDENCE

DECEMBER 18, 1951.

To: C. M. Hollis, vice president, S. C. Solomon, resident auditor, USAF.

From: J. F. Greenwald and M. L. Simpson, USAF.

Plant or office: Willow Run.

Subject: Tooling inspection and rework.

#### JOINT AUDIT SURVEY No. 11

This report is presented in connection with a joint audit survey conducted by the audit staffs of Kaiser-Frazer Corp. and the resident auditor, USAF, on the subject of tooling inspection and rework.

#### SCOPE OF AUDIT

- I. Review procedures established for the inspection of tooling.
- II. Review procedures established for accumulating costs and rebilling tool suppliers for rework caused by faulty construction on their part.
- III. Review procedures established for accumulating cost and rebilling carriers for rework due to damages incurred in shipping to Willow Run.

#### DETAILS OF AUDIT

##### I. Review of procedures

A review of aircraft procedures disclosed that the following instructions contain partial coverage of the subject matter, as follows:

A. Aircraft Quality Control Bulletin No. 503 pertains to Initiation and Use of Tool Disposition Tag under Tool and Gage Inspection.

B. Aircraft Quality Control Bulletin No. 504 pertains to Acceptance of New and Reworked Aircraft Tooling.

C. Aircraft Procedure No. 5 pertains to Freight Claims.

D. Aircraft Procedure No. 24, pertains to Rework of Production National Material.

It was determined that there are no existing procedures that adequately provide for tooling inspection and rework.

## II. Examination of current practices.

Due to the absence of procedures, this survey was necessarily limited to an examination of existing conditions and present methods adopted by supervision.

The absence of any records precluded an audit of rework costs by tool; however, the following information was obtained on six items:

TOOL NO. AND REWORK REQUIRED	RESPONSIBILITY
110-113058-21-MF-3 Rework in accordance with revised engineering design.	Definitely not the vendor's responsibility.
110-113011-21-DDJ Fixture hole off and angle off according to match plate.	Vendor's responsibility. Estimated rework time, 3 hours.
110-313115-1-DJ Dimensions off and screw interferes with jig.	Fault of print, not vendor's responsibility.
110-727619-31-MF Two locating holes to be redrilled at proper angle	Undecided. Either tool print was wrong or vendor work. Estimated rework time, 3 hours.
110-726014-21-DDJ Detail for drilling 2 holes in web to be reworked.	Tool drawing incorrect, not vendor's responsibility.
110-310101-AJ** Out of line both horizontally and vertically.	Damaged en route to Willow Run. Carrier's responsibility.

The last item (\*\*) is a main mating fixture built by Koestlin Tool and Die Corp. at considerable cost. This fixture was received in poor condition, being out of line both horizontally and vertically as the result of a Fisher cartage truck not clearing an overpass while delivering the fixture to Willow Run.

The damage was extensive, requiring considerable rework on the part of the vendor and also by the Kaiser-Frazer tool room. Although this rework cost many thousands of dollars, there was no evidence of any claim filed against the carrier. This is a prime example of recoverable damage cost that has been lost due to the lack of effective action by responsible supervision in the absence of procedures.

The carrier, Fisher Cartage Co., has acknowledged a certain degree of responsibility for the damages, and has agreed to accept a claim, subject to their review.

*Recommendations.*—It is recommended that Mr. J. V. Banks, chief production engineer, submit a review of the circumstances surrounding the damage and rework of the subject tool, to the recipients of this report. This review should include a statement of the number of hours expended on reworking this tool by the K-F toolroom, and the costs incurred by the supplier, Koestlin Tool & Die Corp. Upon receipt of this information, a claim will be prepared for submission to the carrier.

## III. General comment

With minor exceptions, the reworking of all tools was accomplished in the Willow Run toolroom. A review of available evidence indicated that no claims have ever been filed against vendors or carriers, for tools not built to specifications or damaged in transit to Willow Run.

Supervision was contacted in various affected K-F departments and the United States Air Force Inspection Department. It was the general opinion of responsible individuals, with due consideration of the element of time and other

AIRCRAFT PROCUREMENT

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factors involved, that the reworking of tools was handled in the most practical and expeditious manner.

There were many contributing factors for the inadequate inspection of tooling on the C-119 program. The principal factor was the incomplete and obsolete information contained in the Omaha bill of material. This resulted in numerous engineering changes which were incorporated into the tools, wherever possible, by the manufacturers in conjunction with Kaiser-Frazer representatives.

In addition, die tryout subsequently revealed that certain completed dies would not produce the required parts. These dies, in most cases, were reworked in the K-F toolroom. This was considered the most expeditious method of handling inasmuch as rework responsibility could not be established in most instances, due to incomplete prints and other required data. It should be recognized that, under the circumstances, inspection control of tooling for the C-119 program could not be accomplished in accordance with normal accepted procedures.

We have been advised that engineering and design information relative to tooling for the C-123 program is more complete and current, therefore, an improved inspection control can be expected.

*Recommendations.*—It is recommended that the industrial engineering department proceed at the earliest practical date to draft an aircraft procedure covering the inspection and rework of tooling. The procedure should provide a method of determining the responsibility for rejected tools, and for rebilling charges to vendors and carriers.

J. F. GREENWALD,

*Director of Accounting Systems and Auditing.*

W. E. SIMPSON,

*Staff Auditor, United States Air Force.*

DEPARTMENT OF THE AIR FORCE

COMPTROLLER—AUDITOR GENERAL

FEBRUARY 4, 1952.

Subject: Rework of tooling, vendor responsibility.

To: Air Force plant representative, Willow Run, Mich.

1. Joint Survey No. 11 conducted by the Kaiser-Frazer Corp., audit staff and the Auditor General, USAF, resident office, entitled "Tooling Inspection and Rework," dated December 18, 1951, made the following recommendation. "It is recommended that the industrial engineering department proceed at the earliest practical date to draft an aircraft procedure covering the inspection and rework of tooling. The procedure should provide a method of determining the responsibility for rejected tools, and for rebilling charges to vendors and carriers." During the process of this survey on or about November 5, 1951, various Kaiser-Frazer Corp. personnel were apprised of the situation that no procedure was being followed for charging back vendors for rework of tooling which was the vendor's responsibility and that no rework charges for tooling had been billed to tooling vendors.

2. This same situation exists at this date. Inspection is not attempting to determine where the responsibility lines for the tooling that is being reworked at Kaiser-Frazer Corp. or at special rework of tooling vendors and no attempt is being made to bill back vendors for tooling that is their responsibility.

3. As is generally known the rework of tooling is now increasing at a fast rate. It is imperative that Kaiser-Frazer Corp. initiate and enforce procedures for affixing responsibility for the poor tooling and charging back to vendors the proper amount to eliminate excessive costs to the Government on the following contracts: AF 33(038) 18481 and AF 33(038) 72446.

SIDNEY C. SOLOMON,

*Resident Auditor, USAF.*

cc: AFAUDC-I

DOCUMENT NO. 12

This document appears in the testimony of Mr. Solomon of June 5.

DOCUMENT NO. 13

TRANSCRIPT OF TELEPHONE CONVERSATION BETWEEN MR. EDGAR KAISER, NEW YORK, AND MAJ. GEN. M. E. BRADLEY, JR.

MAY 5, 1952; 11:40

KAISER. General Cook called me a few minutes ago and he said, "I am hearing—things about you." So I said, "What's the trouble, is it the Chase operation or the Willow Run operation?" So he said, "It's the Willow Run operation, No. 1. Your progress is not good, you have idle manpower around the place and we don't think you're going to make the schedule." And I said, "General, I think you're talking about a lot of conversation that was going on 6 or 8 weeks ago, I think it is just the opposite at the present time." "No," he says, "We've had people going through the plant just recently and they reported to me that those are the conditions." So I said, "Those aren't the conditions because there was that conversation and the conversation wasn't even justified because of the fact that we—on one schedule and then were slowing down to another schedule." But I said, "Why don't you come and take a look at the place yourself, you haven't visited us and I would like to have you see it." So he said, "Okay I will take you up on that." He said, "I will be in Detroit Wednesday night for that dinner and I'll spend Thursday morning with you and we'll go into it." I said, "Good enough, I would like nothing better and we will be set for you because I'm proud of the operation now and I think it is rolling and I think you will find the same thing. And at the same time while you're there we could take a look at this space problem for Chase. We have problems there." So he said he would see me Thursday morning out at the plant. My purpose in calling you is to tell you first of all that is what we ask him to do and he said he would do it and hoping you would be up there at the same time, and if you're coming—are you going up for that dinner?

BRADLEY. No.

KAISER. Well, I thought if you were that maybe you could come out and maybe you could come up anyway, can you go to the dinner?

BRADLEY. When is the dinner—

KAISER. Oh, it's in Detroit, some defense transportation affair.

BRADLEY. I can't make it, I have a big briefing on Thursday, Edgar, I don't think I can get up there.

KAISER. All right, well, have you got any advice for me, because I'm going to go to work on them because we are in pretty good shape, General.

BRADLEY. Well, I'm glad to hear it.

KAISER. That thing is starting to roll and I think it is going to start to produce something for you now. I told him that we had troubles with this Fairchild thing and you made a deal with me when we made the Chase deal to keep our mouths shut about the thing and I said, we didn't get the tooling drawings, the right set until and I said we also have plenty of conversation going that doesn't want us to be good and I said we are beginning to roll and we're going to talk about it, and we want people to know that it is good and not all this monkey business that we've been hearing about.

BRADLEY. When are you going to deliver some airplanes?

KAISER. This month, four of them. Its coming now its all right, all right then you have no objection to what I'm doing getting him out there to see what is going on.

BRADLEY. How are you fixed financially?

KAISER. We are all right don't worry about it.

BRADLEY. I was a little worried about that \$4½ million that they are holding up there, did you get that straightened out alright.

KAISER. Yeah, I think we are getting that straightened out, that again was loose conversation and I think your own people at that meeting which we all had which was very constructive understood what was going on, they shouldn't be holding the money out, there was no reason for it and the audit section had one time justifying it in front of your own people, but its better all around.

BRADLEY. Okay Edgar.

KAISER. Okay bye.

DOCUMENT NO. 14

JUNE 3, 1952.

Subject: Manpower Problems, Kaiser-Frazer, Willow Run.  
To: Commanding General, Headquarters Air Materiel Command, attn:  
MCPBXM-2 Wright-Patterson Air Force Base, Ohio.

1. Reference is made to letter dated May 23, 1952, from Resources Branch, Production Directorate, Central Air Procurement District, requesting assistance and information regarding recruitment of highly skilled personnel at Kaiser-Frazer, Willow Run.

2. On May 27, 1952, a visit was made to Kaiser-Frazer Corp., Willow Run, and at the local State employment office in Ypsilanti, Mich., by a manpower representative of CEAPD, Mr. W. Derendorf, and a manpower representative of the Detroit Air Regional Office, Mr. D. E. Brightbill. Persons contacted at Kaiser-Frazer were: Mr. J. H. Backus, director, personnel administration, and Mr. R. H. Thomas who is assistant to Mr. Backus. Persons contacted at the local State employment office, Ypsilanti, Mich., were: Mr. E. W. Potter, branch manager, and Mr. Charles Roberts, employer service representative.

3. Following is information obtained with reference made to pertinent paragraph and subparagraphs:

2 (a). Personnel requisitions on file in the contractors employment office.

(1) Job specifications and requirements are clearly and specifically stated. Personnel files and records are well organized and efficiently handled.

(2) In order to determine accurately whether or not the number of workers per position is based on actual needs of production would require a full labor utilization survey. Recommendation for such a survey is hereby made. Indications of malutilization such as those following were noted while in the plant during working hours.

(a) Large numbers of workers in aisles, some standing still, some walking, and some in groups talking.

(b) Groups of from 2 to 8 in several material, blueprint, and tool cribs talking, smoking, and eating.

(c) Workers sitting on and inside of planes, apparently doing little or nothing. These observations were made with the understanding that there is always a degree of surplus labor when an extensive training program is in effect.

(3) Each worker on requisition is to be used in accordance with the title and specifications of the job being filled. Positive control is exercised to place new workers on the job assignment being filled.

(4) A complete and accurate answer as to whether there is labor hoarding would be apparent from a manpower utilization survey as recommended in paragraph 2a (2).

(5) Contractors' records agree substantially with the State employment service office records as to referrals and placements. These figures are given herein under reply to paragraph 2b (5).

2 (b). Personnel requisitions on file with the local office of the State Employment Service.

(1) Requisitions on file with the local State employment office are comparable with those filed in the contractor's employment office.

(a) These requisitions are considered comparable inasmuch as the contractor's personnel requirements are checked each day by the MESSC Employer Service representative, Mr. C. R. Roberts. Good cooperation is evident between the contractor and Michigan State Employment Service. A list of current requirements is enclosed.

(2) The local employment service considers that requisitions are clear and concise.

(3) Positive type clearances were requested by the contractor. Good results were obtained. During December 1951, January 1952, and February 1952 requirements were filled when approximately 300 professional and skilled workers were placed.

(4) Wage rates and schedules are in line with prevailing wage rates and schedules in the Detroit area. A copy of the labor contract with rates listed is enclosed.

(5) State employment service office records indicate that 690 referrals were made in the past 3 months. Of this figure, approximately 277 placements resulted.

2 (c). Other types of efforts by the contractor to solve manpower requirements.

(1) An extensive training program is in effect. Definite steps for new inexperienced workers are used. New workers are assigned to routine work and progress through various steps (usually 5) until skilled in the function involved.

(2) Hiring standards have been relaxed where practicable. The average production worker applicant has a relative minimum of education.

(3) Job dilution and upgrading has been resorted to wherever possible.

(4) Exit interviews are obtained whenever possible. Reasons most frequently given are:

1. Too far from home.
2. Called back to old job.
3. The work is too difficult.
4. Changing to an outside job.
5. Can make more money elsewhere.
6. Do not like type of work.
7. Do not like supervisor.
8. To run own business.
9. Chronic illness.
10. Adverse publicity toward Kaiser-Frazer.

(a) Absenteeism is frequent especially on Monday of each week.

(b) A study is being made relative to quits and absenteeism. When the study is completed, remedial measures will be planned and executed; however, at this time, nothing concrete has been accomplished.

2 (d). Our plant conditions are a definite factor hampering immigration of needed workers to some extent. Rentals of one-room housing units are available. Larger units are in short supply.

(a) Kaiser-Frazer is located 27 miles from northwest Detroit. Kaiser-Frazer is attempting to recruit workers from the Detroit area inasmuch as Detroit workers can commute and, therefore, do not have to move their families as is the case when intrastate and interstate worker clearances are utilized. A labor source area breakdown is enclosed.

(b) Interstate clearance requests are under consideration, but have not been resorted to as yet.

(c) Intrastate clearances have resulted in a few placements, however, the most satisfactory placements from the standpoint of low turnover have been obtained from the Detroit area.

(d) Newspaper, radio, and television advertising is being used daily.

4 Enclosures: 1. Letter from United States Department of Labor, May 28, 1952; 2. letter from Kaiser-Frazer distributor of Kaiser-Frazer employees; 3. letter from Kaiser-Frazer open requisitions; 4. aircraft supplement to union agreement.

RAY C. ULREY,  
Lieutenant Colonel, USAF,  
Air Force Plant Representative.

DOCUMENT NO. 15

INTEROFFICE CORRESPONDENCE

NOVEMBER 3, 1952.

To: Colonel Ulrey, Captain Chance, S. C. Solomon, Lieutenant Wirth, Edgar F. Kaiser, John Hallett, S. A. Girard, S. F. Patyrak, C. M. Hollis.

From: C. M. Hollis, Vice President-Controller.

Plant or office: Willow Run.

Subject: Memorandum of meeting.

A meeting was held in Mr. Kaiser's office at 8 a. m., October 31, 1952, in which meeting the following persons were in attendance:

AIR FORCE

Colonel Ulrey  
Captain Chance  
S. C. Solomon  
Lieutenant Wirth

KAISER-FRAZER CORP.

Edgar F. Kaiser  
John Hallett  
S. A. Girard  
S. F. Patyrak  
C. M. Hollis

The purpose of the meeting was to discuss the accounting procedures employed by Kaiser-Frazer Corp. in connection with the C-119 contract and Kaiser-Frazer compliance with these procedures. The Air Force representatives questioned that Kaiser-Frazer Corp. was now complying with the established procedures.



The following program was established to determine the steps that must be taken to assure immediate and future compliance with accounting procedures and practices:

1. The resident auditor and Kaiser-Frazer accounting department were to analyze the results of the 1951 joint audit in order to report the adjustments made, as a result of this audit, to aircraft and automotive costs. The analysis to cover direct charges to aircraft cost as well as payroll charges, direct overhead, and allocable overhead. This analysis to be presented to Captain Chance and Edgar Kaiser as soon as completed.
2. The Air Force resident auditor and Kaiser-Frazer auditing department would analyze the adjustments resulting from the July 1952 joint audit, the August 1952 joint audit, and the September 1952 joint audit to determine the accuracy of the book recording being made by Kaiser-Frazer Corp.
3. We would employ Mr. John W. McEachren, a partner in Touche, Niven, Bailey & Smart, Detroit, to check the adequacy of the accounting procedures and practices established by Kaiser-Frazer Corp. and check our compliance with these procedures and practices. We would also present to Mr. McEachren the question that has been raised by the Air Force with regard to the utilization of manpower and request his advice and opinion on the subject, namely, as to the practice being followed on contracts of a similar nature for the Air Force.

DOCUMENT NO. 16

INTEROFFICE CORRESPONDENCE

NOVEMBER 10, 1952.

To: Memorandum for files.

From: S. F. Patyrak, Defense Contracts Administrator.

Subject: Rough draft, memorandum of meeting with the Air Force, November 4, 1952, 9:30 a. m.

A meeting was held in Mr. Kaiser's office at 9:30 a. m. on November 4, 1952, which was attended by the following persons:

FOR THE AIR FORCE

Lt. Col. R. C. Ulrey  
Capt. H. A. Chance  
Lt. J. Wirth  
Mr. S. C. Solomon

FOR KAISER-FRAZER

Messrs. E. F. Kaiser  
J. Hallett  
C. M. Hollis  
S. A. Girard  
R. J. Jespersen  
E. R. Jones  
S. F. Patyrak

The purpose of this meeting was to discuss matters pertaining to accounting procedures in connection with the C-119 contract and to ascertain the course of action covering subjects discussed in the meeting of October 31, which was attended by Air Force and Kaiser-Frazer personnel. Memorandum of November 3, covering the meeting, was reviewed and approved by Air Force personnel.

Mr. Kaiser reviewed the first meeting with the Air Force of April 4, 1952, and the most recent meeting of October 31 on the above subject.

With respect to the subject of adequacy of accounting procedure and compliance of procedures insofar as they affect Air Force audit and the matter of manpower utilization, subjects which were discussed at the October 31 meeting, Mr. Hollis informed the Air Force representatives that Mr. McEachren, a partner of the accounting firm of Touche, Niven, Bailey & Smart, will be available on November 17 for review of these items. The Air Force representatives offered no objection to Mr. McEachren making such an impartial review and setting forth his recommendations to Kaiser-Frazer for further discussions with the Air Force.

Then Mr. Kaiser mentioned that the payment-provision clause in the C-119 supply contract sets forth 100 percent reimbursement prior to audit until 80 percent of the costs under the contract are incurred; however, it was his understanding that reimbursement is not being made by the Air Force audit in accordance with the contractual provision. He further added that he discussed the matter with K-F legal counsel and it appears to him that reimbursement by the Air Force should be made in accordance with the provisions. He inquired what can Kaiser-Frazer do in order that reimbursement can be made in accordance with the provisions of the contract. Mr. Solomon informed that since this is a policy matter,

he would like to discuss this subject first with the Air Force representatives and then he would inform Kaiser-Frazer within 1 week what the Air Force decision with regard to this matter will be.

With reference to the analysis of the 1951 joint audit, in order to report adjustments made as a result of this audit to aircraft and automotive costs, Mr. Hollis stated that at present Mr. Jones, of Kaiser-Frazer audit, has prepared the information and it has been submitted to the resident auditor, USAF, for his concurrence.

In regard to the second item which was discussed at the October 31 meeting—namely, an analysis of the joint audit for July, August, and September of 1952 in order to determine accuracy of book recording being made by Kaiser-Frazer—Mr. Jones stated that such information would be made available to the Air Force within 2 weeks. Mr. Solomon stated that he would require approximately another week to review the audit; thus, it was agreed that within 3 weeks, an analysis of July, August, and September audit will be made jointly and submitted to Mr. Edgar F. Kaiser and Captain Chance as requested in the meeting of October 31, 1952.

Mr. Hollis then stated that with respect to the 1951 audit, there are four items that still require to be resolved. These are as follows:

- (a) Whether vacation hours should be included in the allocation base
- (b) Legal and professional fees.
- (c) Executive dining room costs.
- (d) Reinstallation of automotive equipment.

Mr. Solomon stated that he desired to discuss the matter of vacation hours, executive dining room costs, and reinstallation of automotive assets with the local Air Force personnel and within a very short time he would set forth his decision to K-F. With regard to the matter of legal and professional fees, he informed Kaiser-Frazer that he would be in a position to discuss this item within 1 week.

Mr. Kaiser then reviewed the results of the meeting as follows:

- (a) Mr. Solomon, Air Force auditor, will inform Kaiser-Frazer in approximately 1 week what the Air Force policy is with regard to the payment and reimbursement cost provision as set forth in the C-119 supply contract.
- (b) Mr. McEachren will make an impartial determination whether there is adequacy and compliance of accounting policies and procedures implementing the policies.
- (c) Mr. McEachren likewise will review the general subject of manpower utilization and render an impartial opinion to Kaiser-Frazer with respect to this subject of manpower utilization at Kaiser-Frazer. He will also advise all concerned with respect to the accounting practice of the aircraft industry on this subject.
- (d) The 1951 joint audit and the current audit for the months of July, August, and September of 1952 will be reviewed by the Air Force within the next 3 weeks.
- (e) Correspondence directed to the Air Force will be routed through the Kaiser-Frazer contracts administration for proper distribution to Air Force and Kaiser-Frazer personnel. Conversely, correspondence directed to Kaiser-Frazer by Air Force should likewise be routed through Kaiser-Frazer contracts administration for distribution.
- (f) Every effort is to be exerted to resolve any differences, such as the matter of vacation hours, executive dining room, etc., on a current basis.

#### DOCUMENT NO. 17

DEPARTMENT OF THE AIR FORCE  
COMPTROLLER, AUDITOR GENERAL

OCTOBER 9, 1952.

Subject: Report on Conditions Causing Excessive Costs  
To: Auditor General, USAF, Headquarters, Mid-Central District, 343 S. Dearborn Street, Chicago 4, Ill.

##### 1. Purpose of report

In accordance with the request of the Chief, Mid-Central District, Auditor General, USAF, in letter dated September 16, 1952, the following information is presented regarding the action taken by procurement officials and the contractor to remedy the deficiencies reported by this office in our report on Conditions Causing Excessive Costs dated February 25, 1952, addressed to the Auditor General, USAF, Headquarters, Central District.

## 2. Labor

(a) *Idle time of hourly rated employees.*—Subsequent to the notification to the contractor by the AF plant representative on January 21, 1952, of the position taken by the auditor general, USAF resident office with respect to the unsatisfactory condition of excessive idle time among hourly employees in the aircraft area, Kaiser-Frazer Corp., in letter dated February 14, 1952, made formal reply to the AF plant representative, outlining the alleged factors responsible for the manpower situation at Willow Run and the three steps taken by the contractor to correct the unsatisfactory condition (exhibit A). On February 21, 1952, the AF plant representative forwarded the contractor's letter of February 14, 1952 to this office, indicating that the AF plant representative concurred in the statements of the contractor (exhibit B).

A review by this office of the corrective action initiated by the contractor disclosed that the condition of idle time in the aircraft area, while showing some improvement, still remains unsatisfactory. The steps taken by the contractor were as follows:

- (1) "All hiring of production personnel not in skilled and semiskilled classifications (was) terminated."
- (2) "All aircraft departments (were) surveyed to determine what unskilled personnel (were) not productively employed and such personnel (were) separated from the payroll."

The result of these corrective measures is graphically illustrated by exhibit C. The extent of idle time among hourly rated aircraft productive employees is partially represented by the sudden drop in the employment curve with no apparent effect upon aircraft production.

While this action on the part of the contractor reduced the excess of idle time among aircraft employees, continued floor checks and plant tours by members of the Auditor General's resident office disclosed that idle and nonproductive time still averaged as high as 35 percent during the months of March through June 1952. Plant tours during the months of July through September 1952 revealed that no significant improvements have been made by the contractor in the reduction of idle time among hourly rated aircraft employees. This failure to reduce idleness in the face of increased aircraft production has been due to the increased tempo of the aircraft employment program carried on by the contractor since May 1, 1952. Direct hourly employees engaged in aircraft production have increased from 1,975 employees on February 15, 1952, to 4,421 on September 30, 1952. Details on the number of aircraft employees, by month, are presented in exhibit D.

The third corrective measure initiated by the contractor, as outlined in the contractor's letter of February 14, 1952, was as follows:

- (3) "A new and comprehensive procedure for manpower control (was) formulated."

The comprehensive procedure referred to by the contractor was an aircraft procedure entitled "Manpower Utilization and Performance (Short Range)." The contractor began work on the new procedure on February 15, 1952, however, the procedure was not published until May 15, 1952, or 3 months after the need for manpower control was called to the attention of the contractor by the Auditor General's representative.

As soon as the manpower control procedure had been published, the contractor's procedure compliance group undertook to establish the degree of actual compliance with the new procedure. This stage of the program was still in process as of September 30, 1952. Four and one-half months after the procedure on manpower utilization had been published, the contractor had not established the degree of actual compliance.

In our opinion, the corrective measures taken by the contractor to remedy the condition of excess idle time among hourly rated aircraft employees have not completely relieved the unsatisfactory condition.

(b) *Manual adjustment of clock cards.*—On January 18, 1952, the resident auditor notified the contractor that exception would be taken to payroll costs supported by manually adjusted clock cards. The contractor immediately undertook a program to reduce and in some cases eliminate the causes for manually adjusted clock cards.

At the suggestion of the Auditor General's representative, Government owned time clocks were installed throughout the aircraft area in order to deter the contractor's employees from further damaging the time clocks to permit leaving in advance of the scheduled departure time. Each Government owned time clock was stenciled with the following notice:

"U. S. Government owned property. Warning. Do not destroy, deface, remove or convert to your own use. Violations will be prosecuted under U. S. Code, Title 18, Section 641, which provides penalties of 10 yrs. in prison, \$10,000 fine, or both."

Subsequent to this action, recurring payroll audits by this office have indicated that the condition of manually adjusted clock cards has been satisfactorily corrected.

(c) *Supervisory employees in allocable departments charging time directly to Air Force contracts.*—The contractor has revised the Time and Payroll Manual to eliminate the possibility of supervisory employees in allocable departments charging time directly to Air Force contracts. The Auditor General's resident office and representatives of the contractor have recently completed a joint audit of 1951 payrolls in which all direct charges of this nature were removed from Air Force contracts and included in the proper general allocable pool.

Current audit activity by this office indicates that this condition has been satisfactorily corrected.

### 3. Tooling

(a) *Rework of defective or unusable tools.*—The contractor has developed and published the necessary procedures to establish an adequate system to permit identification and segregation of rework costs incurred as a result of faulty workmanship. In our opinion, the corrective measures taken by the contractor have been satisfactory.

OCTOBER 9, 1952.

AFAUDMC-ID-KW

Subject: Report on conditions causing excessive costs.

(b) *Duplicate tool design and fabrication.*—An audit survey undertaken jointly by members of the contractor's audit staff and the Auditor General's resident office, signed by the director of the contractor's accounting systems and auditing department and issued April 18, 1952, disclosed that a total of 502 apparent tool duplications had been established.

Confronted with this evidence, the contractor has now established the necessary procedures of tool control to prevent any recurrence of this condition. A disallowance for duplicate tooling will be taken by this office upon the completion of the tooling program.

### 4. Material

*Obsolescence of production parts.*—The contractor has revised the procedures dealing with the purchase, inspection, and disposition of production material as well as establishing a new procedure covering production material changes at Willow Run. As a result of these corrective steps taken by the contractor at the request of the Auditor General's resident office, conditions with respect to the obsolescence of production parts have shown considerable improvement. Upon the insistence of the Auditor General's resident office all discrepancies in part numbers must be cleared by inspection before reimbursement will be made.

### 5. General

(a) *Possible additional cost to the Air Force resulting from 90-percent guarantee of 5-percent V-loan of \$25 million obtained by Kaiser Manufacturing Corp.*—The possibility of loss is still in existence; however, it is the understanding of this office that AMC personnel, in the person of Mr. F. Robertson, financial adviser to Major General Bradley at AMC, has this aspect under consideration and is now conferring with management of Kaiser-Frazer Corp.

(b) *Arbitrary and unsupported changes of account, distribution on basic accounting documents.*—This condition has been corrected through the joint audit efforts of the contractor and the Auditor General's resident office. Beginning with July 1, 1952, all basic accounting documents have been subject to a current review by representatives of the contractor and this office. As a result of this joint program, errors in accounting distribution have been greatly reduced.

Appropriate disallowances will be taken by this office in cases of improper accounting distribution occurring during 1951 based upon a joint audit of all payroll and overhead costs of this period.

(c) *Compensation to union representatives.*—The union agreement authorizing nonworking union representatives is still in existence. Recent restrictions upon the approval of overtime work for aircraft employees has resulted in a corresponding reduction in the overtime premium payments made to the nonworking union representatives.

6. As a result of the deficiencies reported by this office in our initial report on conditions causing excessive costs, a meeting between representatives of the Air

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Materiel Command, the Auditor General and the contractor's top management, including Edgar Kaiser, president of Kaiser-Frazer Corp., was called by Brigadier General Keillor, commanding general, Central Air Procurement District, on April 4, 1952. At this meeting, and at two additional conferences subsequent to this date, the problems of excessive idle manpower and various deficiencies in the tooling program were discussed.

As an outgrowth of these meetings, a permanent joint policy committee was formed composed of representatives of the Air Materiel Command, the Auditor General, and the contractor's top management officials directly below the company president. The purpose of this committee has been to discuss the various problems arising during the development of the aircraft program at Willow Run, and to formulate and implement solutions acceptable to both the Air Force and the contractor.

SIDNEY C. SOLOMON,  
Resident Auditor, USAF.

EXHIBIT A

FEBRUARY 14, 1952.

Subject: Conditions Causing Excessive Costs to Government Contracts.  
To: Air Force Plant Representative, Kaiser Manufacturing Corp., Willow Run, Mich.

(Attention: Lt. Col. Ray C. Ulrey)

This will acknowledge your letter of January 21, 1952.

After the receipt of your letter of January 23 an inspection of the plant was made by our representatives, together with Colonel Ulrey, Captain Smith, and Mr. Solomon. On this inspection trip it was observed that certain employees were not engaged in productive work. The percentage of such employees, however, was considerably less than that indicated in Mr. Solomon's memorandum of January 21, 1952, a copy of which was attached to your letter.

Whenever a new manufacturing program is commenced in a plant and it is desired to initiate production within the shortest time practicable, it is inevitable that a certain number of employees will not be engaged full time in productive work. This results from the necessity of recruiting manpower in anticipation of the receipt of tooling and technical information and training such manpower. In connection with the latter, it might be noted that we have been following the practice of training on the site, that is, having trainees observe the operation of equipment by qualified mechanics. Such trainees, although not engaged in productive work, are in no sense idle.

In addition to the factors always incident to the initiation of a new program, certain other causes beyond our control have contributed to the manpower situation at the Willow Run plant. Among these are the following:

1. The failure of Fairchild Engine & Airplane Corp., the design agent, to furnish technical information required for the completion of tooling and the initiation of production in accordance with schedules.
2. The numerous changes made by such design agent in the technical information furnished by them, which changes necessitated delays in our tooling program.
3. Delays in delivery on the part of suppliers of tooling.
4. Lack of information in respect of the changes in the schedule of the Air Force for the delivery of the C-119 airplane.

There is attached hereto a chart showing the forecast of manpower requirements for the schedule of work contemplated and the actual number of employees on the payroll, which illustrates when the difficulties referred to above became apparent a reduction was made in the hiring program with a view to restricting such program so far as then appeared to be consistent with a policy designed to avoid any delay in the manufacturing work.

We were verbally advised on February 1 of the so-called 10B schedule for aircraft production which, of course, will have the effect of decreasing our manpower requirements. No official notification, however, of this reduction in schedule has yet been received by us. In view of the unofficial information in respect to the schedule which we have received and the statements made in your letter of January 21, 1952, we have taken the following steps:

1. All hiring of production personnel not in skilled and semiskilled classifications has been terminated.

2. All aircraft departments have been surveyed to determine what unskilled personnel are not productively employed at the present time and such personnel have been separated from the payroll.

3. A new and comprehensive procedure for manpower control has been formulated.

We do not feel that the manpower situation at the Willow Run plant is in any way attributable to failures on the part of management. If, and to the extent that there has been any excessive manpower in the plant, the situation is clearly one attributable to circumstances of a temporary nature, which is now in process of correction.

If there is any further information that you desire in regard to this matter, please let me know.

Yours very truly,

KAISER-FRAZER CORP.,  
JOHN HALLETT,  
*Executive Vice President and General Manager.*

EXHIBIT B

AF PLANT REPRESENTATIVE,  
CENTRAL AIR PROCUREMENT DISTRICT,  
KAISER MANUFACTURING CORP.,  
*Willow Run, Mich., February 21, 1952.*

Subject: Conditions causing excessive costs to Government contracts.

To: Auditor General, USAF, Resident Office, Kaiser Manufacturing Corp.,  
Willow Run, Mich.

1. Inclosed is a copy of letter dated February 14, 1952, on above subject addressed to the writer and signed by Mr. John Hallett, executive vice president and general manager, Kaiser-Frazer Corp. This letter is a reply to the undersigned's letter dated January 21, 1952, on same subject which referenced your letter addressed to this office of same date.

2. The writer concurs with Mr. Hallett's statement in the next to the last paragraph of his letter " \* \* \* the situation is clearly one attributable to circumstances of a temporary nature \* \* \*" and evidence exists that the contractor is now in the process of correcting the temporarily excess personnel situation.

3. It is requested that your office review the contractor's corrective action as indicated in attached letter; the review to encompass adequacy of intended corrected action and surveillance of compliance with his proposed plan of control.

RAY C. ULREY,  
*Lieutenant Colonel, USAF, AF Plant Representative.*

1 inclosure, K-F letter dated February 14, 1952 re above subject.  
cc: CEG, CERKC, CERKP.

EXHIBIT C

*Number of employees, Kaiser-Frazer Corp., Willow Run, Mich.*

Date	Aircraft				Employees common to aircraft and automotive operations	Total plant
	Hourly		Salary	Together		
	Direct	Indirect				
Feb. 15, 1952	1,975	701	900	3,576	7,800	15,191
Feb. 29, 1952	1,849	833	915	3,597	7,937	15,458
Mar. 15, 1952	1,847	834	954	3,635	8,069	15,782
Mar. 31, 1952	1,749	874	974	3,597	8,171	15,774
Apr. 15, 1952	1,728	922	1,016	3,666	8,191	15,808
Apr. 30, 1952	1,829	908	1,063	3,807	8,234	15,850
May 15, 1952	2,048	882	1,057	3,987	8,226	15,936
May 31, 1952	2,339	723	1,022	4,084	8,312	16,205
June 15, 1952	2,748	740	1,014	4,502	8,348	16,606
June 30, 1952	3,181	543	1,048	4,772	8,511	16,981
July 15, 1952	3,525	538	1,068	5,131	8,556	17,446
July 31, 1952	3,747	632	1,117	5,526	8,405	17,655
Aug. 15, 1952	3,733	622	1,182	5,537	8,367	17,645
Aug. 31, 1952	3,751	651	1,272	5,674	8,310	17,949
Sept. 15, 1952	4,060	621	1,367	6,048	8,368	18,390
Sept. 30, 1952	4,421	654	1,422	6,497	8,498	19,083

DOCUMENT NO. 18

This document appears in conjunction with document No. 2.

DOCUMENT NO. 19

TRANSCRIPT OF TELEPHONE CONVERSATION BETWEEN MR. EDGAR KAISER AND  
MAJ. GEN. MARK E. BRADLEY, JR.

DECEMBER 24, 1952, 4:10

Preliminary greetings and remarks omitted.

BRADLEY. Are you making any progress?

KAISER. Yes, I think we are. You wouldn't know it from all the chatter that is going on, but I can tell you one thing. This fellow Harley Jones that you sent up here is—he's a strong guy and he's certainly righteous, but he knows what he's doing. I guess you know that better than I do.

BRADLEY. Yes, I know it.

KAISER. And he's a great help.

BRADLEY. Well, that's fine. Of course, you ought to have somebody there running that place that's like that.

KAISER. Well, I think we have.

BRADLEY. I don't think you have, Edgar.

KAISER. You don't really think so?

BRADLEY. No, I don't. If you had, we wouldn't have, even if some of the things are questionable and there's a lot of reason for it, we wouldn't have a manpower situation and a labor utilization and a lack of planning and stuff like that that we've had up there. And it just doesn't make sense to me. Well, anyway, what I want to tell you about was, first, that we don't think that plan that you talked about, I don't think that will work.

KAISER. Okay. Well, you know. I'm not sorry about that. I just wanted you to know if that was a right thing to do, we'd try to help.

BRADLEY. Now, I do think we're going to have to bring this thing right out on the table and the next couple of months, for instance, we're going to have to look again and see what the trend is, what's going on, and what's being done.

KAISER. That's right. What are you planning on doing in about, say, 30 or 45 days, sending some of these people back here—

BRADLEY. That's right. Sometime around 60 days from the time we sent you that first letter.

KAISER. You will send them back again. I think that's a good thing to do.

BRADLEY. Now, also, I think that the situation, in my opinion, is so bad that there's pretty grave danger of drastic action maybe being taken. I think you ought to think very seriously about that other proposal you had of a possibility of some partnership or other.

KAISER. Do you?

BRADLEY. Yes, sir.

KAISER. All right.

BRADLEY. I really think that if you think you could work that out, that all the drastic action that you can take is certainly in order.

KAISER. O. K.

BRADLEY. I just wanted to tell you that—I hate to be calling you on Christmas eve to be telling you something like that. I'm not saying that you should do it—don't get me wrong. I'm just saying that we would think that anything we could do to get our position stronger and present a better front on this thing, would be better.

KAISER. The thing I need to know is if I've got a little space of time here, if you're going to leave me alone and not do anything or not take anything away from us for that 30 or 60 days, I'm all right.

BRADLEY. Well, I hope you are, and that's my recommendation to the higher levels.

KAISER. In other words, not to do anything.

BRADLEY. My recommendation is to carry out my letter—that I told you we would be back in 60 to 90 days.

KAISER. Right. All right. But what you're saying to me is there's so much discussion going on up here, that it might be advisable to adopt the other suggestion I was talking to you about.

BRADLEY. Well at least I would explore it, because anything that would give you a better chance to perform and assurance of performing, would do a lot of good.

KAISER. O. K. Well, I think this, I don't know what you get. I think your people, even your teams that have been up here, feel a lot better about the 123 program, don't they?

BRADLEY. Yes, they do.

KAISER. At least we've got something good to look at.

BRADLEY. Yes, they say that looks better.

KAISER. Well, that's good.

BRADLEY. But the terrific amount of overhead you've got on this business up there, we just can't tolerate. And one of the best places, I think, to cut this cost is in that overhead. I think you ought to start working on that thing.

KAISER. That's right. But at the same time, we have to look at what we've got to think about. We've got to think about what kind of overhead does it take when you get this thing in gear. Now, I tell the boys here, the important thing is you don't have any more people around here in overhead than it takes when this thing is up to program. Do you understand what I—

BRADLEY. Yes, I understand, but I don't think you can afford to carry that many. I think that's one of the things that's got you boxed.

KAISER. If you're going to bring in—and I'm not trying to argue with you, I just want to tell you what our philosophy is, maybe you can help me. If you're going to bring in new people and new organization, this is no different than what we went through before. It takes a little while to get new people, and you want to build new people.

BRADLEY. Yes, but you've got a terrific overhead that's been running up there, and there's nothing for them to be managing down there. You'd better take a look at that one. I'm not qualified to sit here in Dayton and tell you.

KAISER. I know that. I understand what you're saying, and I appreciate your calling about it.

BRADLEY. O. K., well, a real happy Christmas.

KAISER. Thank you, and I appreciate your calling. Goodby.

BRADLEY. See you later.

DOCUMENT No. 20

MEETING AT KF FEBRUARY 3, 1953

Loomis, Col. Arthur H., USAF, Deputy Commander, CEAPD  
Jones, Col. Harley S., USAF, commanding officer, NEAPD  
Martin, Lt. Col. Wallace S. Jr., USAF, AF plant representative  
Reams, Maj. Charles E., USAF, Deputy AF plant representative  
Watts, Maj. Harry T. Jr., USAF, Chief, Flight Test and Acceptance  
Chance, Capt. Harry A., Chief, Contract Branch  
Crow, Capt. Willard, USAF, Chief, Industrial Property Branch  
Furman, Lee, Chief, Quality Control Branch, Fairchild Aircraft Corp.  
Clark, Charles F., Chief, Quality Control Branch, AFPR  
Renshaw, Burson W., Chief, Production Branch  
Cook, Paul E., Production Branch  
Baker, Alfred, Assistant Chief, Quality Control Branch  
Hayes, Frank, Quality Control Branch  
Nyberg, Lloyd, Quality Control Branch

Time: 1330

Date: February 3, 1953

Place: Dining room A; list of personnel in attendance is above.

Colonel Jones. This briefing is to fulfill two functions: (a) To go over with you again what has transpired in the 2 months that I have been here; and (b) To wind up my activities in the plant.

I am planning now that tomorrow will be my last day and I will try to get on my way to Boston sometime Thursday. I have a call from General Bradley coming in for me and will ask to be excused at that time—there may be a change in my plans.

Some of this may be repetitious, but it might be well if we start from the beginning. The day after Thanksgiving, I received a call from General Bradley telling me that due to my varied experience in plants, General Rawlings had requested that I be placed on temporary duty at Willow Run for a period of 60



days. My interpretation of my mission was that I was to assist the contractor in any way that I could. I have not entered into any personnel recommendations or procedures outlined by the local Air Force or district. In briefing Lieutenant Colonel Ulrey, my instructions were to continue business as usual. I wanted to be free to spend time in the shop and with the contractor. My 2 months are up and quite a bit has transpired.

I arrived here on December 1, 1952. The first week was spent getting acquainted with the plant layout, getting acquainted with the people that I would have to deal with, looking at operation sheets and general conditions existing in the plant. It was obvious that the plant was overstaffed and that there was considerable idleness; supervision was marginal in several areas; tooling was questionable throughout the plant and production control was faulty; production and assembly were badly out of balance.

First steps that I took followed about these lines:

(a) Program of layoffs by areas was recommended and gone into with the contractor, which he has since implemented.

(b) List of supervisory skills that were needed were established and where I could, I gave assistance in arranging interviews, such as Consolidated at Fort Worth.

(c) Program of tooling coordination, backing up from Station 8 through subassembly, fabrication, and machine shops was recommended and immediately put into effect. Results of this are not quite satisfactory, but anyway an attempt was made to get tooling coordination back from Station 8, and this program is still progressing.

(1) Cycling of all templates was started and progressed fairly well. Reason for that being there were sometimes as many as 2 or 3 templates on the same part or tool in the shop.

(2) A rigid tool-control system was asked for, which is now progressing. Back in December in the punch-press area as an example, as many as one-fourth of tools were lost. The gentleman that ran that, named Eddy, couldn't take the pressure and quit. Keselis seems to be getting things under control. I see things in the plant that indicate better control of tools. The punch-press area tool crib is a good example.

I stopped all overtime in final assembly and the flight line pending balancing of production releases and subassemblies. No need of having overtime out there.

At the end of 4 weeks here, I knew I was about due to be called into Wright Field to brief the Under Secretary, Mr. Gilpatric, and General Cook, together with AMC personnel. I was not satisfied with the progress being made. I called a conference with Mr. Edgar Kaiser and Mr. John Hallett and informed them that progress made was unsatisfactory. Within 2 hours, Mr. Hallett was relieved of all automotive duties in the front office and set up his office in the airframe shop with the sole responsibility of getting the show on the road.

I think that probably this was the turning point in the program. To me, this was a very excellent move. I had one man to go to who wasn't giving me any double talk. Mr. Hallett is an honest man, capable of getting down into details and coming up with the correct answer. Don't ever sell this fellow short. Anyway, after John got down into the plant, things began to go a little better. All during this time we were also having quite a few conferences pertaining to a master schedule on the C-119. They had a master schedule of a sort here, but I had trouble interpreting it and it obviously was worthless as a shop guide. It wasn't factual or realistic.

I gave one ground rule and worked with them very closely on the buildup on the master schedule. The ground rule was that the C-119 must be completed in 1953. I have three reasons for that—

(a) Felt it was a reasonable expectation to complete the program in 1953.

(b) The cost would be prohibitive if extended beyond 1953. Costs on the C-119 will be terrific anyway.

(c) Space and shop loading would be required for the C-123.

On the 2d of January, a master schedule for the C-119 was published. It looks realistic to me. No reason why we should not be on it. Worked out so far O. K. January schedule called for 6 ship equivalents in subassembly. Lezie's board showed equivalent of 8 airplanes.

This month's release in subassembly is 7. No reason why we can't turn out 9; contractor shooting at 10. Line move was on a 4-day cycle through January 20; reduced to 3 days on January 21. We have had 3 moves since then on schedule. Man-hours are very healthy. Next change will be 2½-day cycle, effective March 16.

After the first week in January, I suspended all overtime unless it could be personally defended by the general manager. Outside of engineering and a handful of personnel required to change prop boots, there has been no overtime since the first week in January.

It is my considered opinion that your C-119 program is now showing fair signs of stabilization. Present schedules should be met and successfully culminated. Don't know whether you have all seen the out-of-factory schedule. For informational purposes, following is present schedule:

	Out of factory	Accepted	Accumulative
February .....	6	7	29
March .....	8	8	37
April .....	9	9	46
May .....	11	10	56
June .....	13	12	68
July .....	17	16	84
August .....	15	16	100
September .....	16	15	115
October .....	16	17	132
November .....	15	14	146
December .....	5	13	159

Again, I consider that this is a reasonable schedule; nothing impossible in the acceleration unless you have a major engineering change or a group of major engineering changes. No reason why this schedule shouldn't be met.

Major REAMES. You mentioned tool coordination at station 8 back. Any recommendations?

Colonel JONES. There is still too much time spent in sandbagging in station 8. I talked to Laney about this yesterday and they are starting another tool coordination from this station.

\* \* \* \* \*  
Colonel JONES. On the assumption that the C-119 was the most immediate problem, little time was spent on the C-123 program until January 15. Since that time, all efforts have been on the C-123. As you all know, outside of cargo floors, the first assemblies are to be furnished by Chase. I was at Chase Friday, January 30, 1953. They are in trouble. Their main areas of trouble are: center wing, nose, and forward side panel. I do not believe they will meet their present schedule regardless of what they say.

Kaiser is tooling up rapidly, but they will not be able to materially assist Chase except for details. They just are not going to have any time. On C-123 tooling, I would say tooling is good; tool design is good; and I would consider it class A tooling. There are a few things that bother me:

(a) Terrific amount of work slated for station 9 mating buck. Station 8 is bad also. I began immediately to look at the amount of tooling ordered. With Mr. Hallett and Mr. Hailey, I took a look at the mating bucks as these were the longest lead time item. It was nicely engineered from a processing standpoint and from this study the 3 bucks that they had ordered would just cover requirements, but things that bother me is:

(1) It is the first airplane of its type.

(2) Computations were on a straight 16-hour day. Unless a miracle happened, you will not get 16 effective hours in your mating buck.

(3) Figuring on a total working force for 30 people, you can get 30 people in there, but not get 30 hours per hour work from them.

I strongly recommended that the contractor order a fourth buck, which he did. Since then, I have discussed with them the possibilities of mating some of his indexes before putting into the mating jigs. They are probably too far down the line to do that, but its worth looking into. In my opinion, with present sequences at station 9, as many as 7 mating bucks may be required for a production rate of 35 monthly.

On the shop orders on the C-123, you will have to cover approximately 10,000 parts in this plant. You are going to have a pretty rapid build up on shop orders. In order to meet this build up, it is my opinion that you will have to consolidate C-119 orders even through lot 7. Lot 6, lot 5, and lot 7 with scrap replacement orders will have to be consolidated, otherwise C-123 orders will not be met. It is my recommendation that we look pretty closely at the necessity for cutting down C-119 orders in order to make room for C-123; I have recommended this before. Your C-123 orders will probably be well in excess of 400 per day by

June. This means a much greater acceleration in your fab and machine shop orders than you have shown in the past 60 days.

In my opinion, the C-123 schedule can be met—but everything has to go right. In summarization, I have about eight things that have to be done in order to meet this schedule.

(a) It will be necessary for Chase to establish 2 shifts in order to meet Kaiser mating dates.

(b) Chase will have to use considerable spot overtime.

(c) Kaiser will have to recognize their dependence on Chase output through July of this year. This in turn means closer coordination and harmonious cooperation between Kaiser and Chase—present bickering and sniping between the two companies must be eliminated. Presently established Sunday production meetings should be continued.

(d) Where ever feasible, present outstanding C-119 shop orders must be consolidated to release shop loading for the C-123.

(e) Tryout of C-123 tools at Willow Run must be expedited on a priority based on usage dates.

(f) Tools at vendor shops must be expedited, especially those tools pertaining to index 11, 10, and 16.

(g) A realistic and workable master schedule must be published by Fialho.

(h) Production control must increase their shop order releases based on tool availability—this should be done immediately and not be held for the master schedule.

I do not like to wind this up on a note of pessimism, but I don't think you will meet your C-123 schedule. I think you will have a 60-day slippage on your first article. I won't bet on your making this schedule. It can be met if everything goes right. As a rule of thumb, 30 percent of all tools must be reworked before using. Kaiser schedules are based on the using of those tools immediately.

Are there any questions?

Lieutenant Colonel MARTIN. Is there any way to incorporate this tool rework period of time and still meet schedule?

Colonel JONES. Only way is through use of Chase. There are a lot of shortcuts. I have suggested spot overtime and additional shifts, and I think that is your only way. If Kaiser will get together with Chase, they can do a lot. Sunday meetings is probably one way of getting people together to start pulling as a team.

Mr. CLARK. Not only Chase and Kaiser should get together, but we had better, too.

Colonel JONES. I have not worked with the AF personnel; but have worked entirely with the contractor. The Air Force has two functions:

(a) To protect the Government's interest—this is paramount.

(b) Assist the contractor in meeting the terms of the contract—getting together to assist him in getting over some of these rough spots.

Captain CHANCE. Are we in trouble on the nose assembly?

Colonel JONES. A little. Might be able to work way out of that. As for side panels, I think you can lick that, too. I would strongly urge and advise if any higher authorities ask you about the C-123 program that you don't try to mislead them with too optimistic an answer. It is possible, but everything has to go right for you. We happen to be in a business where things don't work out that way.

Major REAMES. We have a problem at West Trenton to follow out some of the recommendations that Colonel Jones has made, such as freeze on overtime and freeze on hiring which leaves Chase in bad shape.

Colonel JONES. These are problems that go across district lines, and I think the Air Force will have to work closely.

Major REAMES. Results of manpower survey are that they are in bad shape. Asked Mr. Ryker about going on 2 shifts and Ryker's answer was that they don't have personnel to man 2 shifts.

Colonel JONES. Agreed. It isn't that simple just to say that they will have to go on 2 shifts if you have to use an entirely green crew.

Captain CHANCE. Did you touch on manpower situation at West Trenton?

Colonel JONES. No; I talked to Colonel Heyer and outlined our problems to him much as I am doing here today. I tried to impress upon him how vital Chase was in the production of early airplanes. He seemed to appreciate that. Didn't you think so, Reames?

Major REAMES. Yes.

Lieutenant Colonel MARTIN. Will you make a report similar to this to General Bradley?

Colonel JONES. I talked to General Bradley today and told him substantially what I have said here.

Lieutenant Colonel MARTIN. Should we, through our districts, put pressure on either district through AMC?

Colonel JONES. I told him I was going to leave my recommendations with you. General Bradley expects you to use your own judgment and wants you to run your own show with district and doesn't want you bothering AMC as long as you can iron out your difficulties within the district. Colonel Heyer is anxious to cooperate.

Lieutenant Colonel MARTIN. One point I would like to make with respect to distribution of these minutes. They are to be confined strictly to AF personnel, and are not to be given to the contractor personnel under any circumstances. May be used as background material to follow through on, but with respect to loaning the minutes to contractor personnel—this is out.

Colonel JONES. Hope to say goodbye tomorrow individually. I sincerely appreciate your very fine cooperation. Will be glad to get back to Boston. I have enjoyed being here and enjoyed working with the fine group of people stationed in this plant and at district. You have an interesting job ahead of you. There is nothing impossible about it. Again thanks for the pleasant relationship for the last 2 months, and if there is anything I can do, please don't hesitate to let me know.

Lieutenant Colonel MARTIN. Do you want information to go any further than this room when your departure is?

Colonel JONES. No; I have done this for a reason. Tomorrow afternoon, I intend to say goodbye to the contractor.

\* \* \* \* \*  
Meeting adjourned at 1440. Copy of minutes to be distributed to all present.

DOCUMENT NO. 21

APRIL 28, 1953.

Memorandum for: Col. W. R. Graalman. MCPP2.  
Subject: C-119 Production at Kaiser Mfg. Co., Willow Run, Mich.

You have asked for my comments on four questions.

Question No. 1. What about fins manufactured by Gibson that were rejected by Fairchild but were sandbagged into airplanes at Willow Run?

I am not familiar with this condition and did not hear anything about it while I was at Willow Run. I talked to Mr. Les Martz this morning concerning this alleged condition. As you know, he was chief of quality control at Kaiser until late in January of this year. He also knows nothing about this alleged condition. He said that the only fin condition that he recalls was early in the production phase at Willow Run, certain engineering changes had not been incorporated and that in order to take care of these changes, Fairchild had issued a field fix.

Question No. 2. What about my March meeting with Mr. Edgar Kaiser?

I was at Kaiser Manufacturing Co., Willow Run, on March 30 and 31, 1953. I had a conference with Mr. Edgar Kaiser at noon on March 31 to discuss my observations with him. Also present at the meeting were Mr. John Hallett, Mr. Steve Girard, and Lt. Col. W. S. Martin, Air Force plant representative. I told Mr. Kaiser that his shop-order completions and subassemblies were not going to meet the master schedule that had been mutually agreed upon January 3, 1953. I also informed him that tool control was still unsatisfactory. I suggested that in order to buy time, he appeal to Fairchild for parts and assemblies that were presently jig stoppers in his plant. He intimated that he thought this might be a good idea and directed Mr. Hallett to immediately determine parts required and see if Fairchild could help them out. I later checked with Kaiser's man Covelle about these parts and talked to Mr. Lee Furman stationed at Fairchild about expedited shipment of parts available. Mr. Furman informed me that they had just finished checking their bin stocks against a list of 79 parts requested by Kaiser and about two-thirds of this list were available and were being immediately shipped. I was disappointed at the small number of parts requested by Kaiser as I felt from what I had seen at Willow Run, the list should be in excess of several hundred parts rather than a mere handful such as 79 represents. Incidentally, at no time did I hear anything from Mr. Kaiser or any of his people that was critical of Fairchild's cooperation in parts assistance.

Question No. 3. How far is Kaiser behind schedule?

I told Mr. Kaiser and my reports to my superiors here at AMC have been to the effect that the last airplane on the C-119 contract at Willow Run will not be delivered to the Air Force until March 1954.

Question No. 4. Is it still true that Kaiser does not have an effective tool-control system?

Yes. They have recently made some changes in the tool-control setup and have charged Mr. Ed Argersinger with the task of establishing an effective tool-control system. Mr. Argersinger is a capable individual. Tool control is not an impossible task and is not a great deal different in airframe than in any other form of business. I feel that probably by the end of April they will have a satisfactory tool-control system established. There had been some improvements since my last visit—for example, in the punch-press areas, the tools were now stored in areas adjacent to the machine tools. This is a good move, but from an overall standpoint, there were still, in my opinion, too many shop orders held up for tooling.

HARLEY S. JONES,  
Colonel, USAF,  
Deputy Director for Production,  
Directorate of Procurement and Production.

#### DOCUMENT NO. 22

UNITED STATES AIR FORCE, MANPOWER UTILIZATION SURVEY, KAISER-FRAZER  
CORP., WILLOW RUN, MICH., NOVEMBER-DECEMBER 1952

#### THE SURVEY

Requested by Director of Production and Procurement, Air Materiel Command,  
Wright-Patterson Air Force Base, Dayton, Ohio  
Authorized by Commanding General, Air Materiel Command, Wright-Patterson  
Air Force Base, Dayton, Ohio

Reason for the survey: To determine if there is excessive idle time and/or over-  
manning of work stations

Date conducted: November 24 to December 18, 1952

The survey team:

Guy A. Whitcomb, Chief, Labor Utilization Section, Industrial Manpower  
Branch, Industrial Resources Division, Headquarters, AMC, United  
States Air Force

W. S. Bagley, Industrial Specialist, Labor Utilization Section, Industrial  
Manpower Branch

L. P. Desmond, Industrial Specialist, Labor Utilization Section, Industrial  
Manpower Branch

R. R. McCracken, Industrial Specialist, Labor Utilization Section, Industrial  
Manpower Branch

#### INITIAL MEETING WITH MANAGEMENT

In the initial meeting with management, held at Kaiser-Frazer Corp., Willow  
Run, Mich., in the office of Mr. S. A. Girard, vice president and general manager,  
on November 24, 1952, the following people were present:

Kaiser Manufacturing Corp.:

John Hallett, executive vice president

M. Miller, executive vice president

S. A. Girard, vice president and general manager A/C

S. H. Taylor, assistant general manager, A/C

C. M. Hollis, controller vice president

S. F. Patyrak, defense contracts administrator

W. B. McLaren, vice president—industrial relations

H. V. Lindberg, executive assistant to vice president and general manager,  
A/C

W. S. Brown, legal counsel

L. K. Covelle, Wright Field representative

McEachren, Touche, Niven, Bailey and Smart (CPA, Detroit)

United States Air Force:

Lt. Col. S. E. Cleveland, USAF field project officer, C-119  
 LT. Col. R. C. Ulrey, AFPR, Kaiser Manufacturing Corp.  
 Maj. J. F. Hanley, Headquarters, USAF  
 Maj. C. E. Reames, deputy, AFPR, Kaiser Manufacturing Corp.  
 Maj. C. G. Glasgow, Headquarters, AMC  
 Capt. H. W. Smith, chief, production branch, KMC  
 Capt. H. A. Chance, contracting officer, AFPR  
 S. C. Solomon, resident auditor, Auditor General, USAF  
 B. W. Renshaw, production branch, AFPR  
 A. G. Ungerman, central procurement district, USAF  
 D. E. Brightbill, Detroit regional office, USAF

United States Air Force labor utilization survey team:

Guy A. Whitcomb, Chief, Labor Utilization Section, AMC  
 L. P. Desmond, Labor Utilization Section, AMC  
 W. S. Bagley, Labor Utilization Section, AMC

During the discussion the Chief of the Labor Utilization Section (AMC survey team leader) explained the purpose of the visit and the techniques used in conducting the survey.

He stated that--

(a) The team's findings would be discussed with management as the survey progressed.

(b) Top management should appoint a liaison man with whom the survey team would maintain close contact and make appointments with the various executives and department heads.

(c) A meeting would be held with top management to discuss the rough draft of the summary and recommendations before the final report is published.

(d) Immediately upon completion of the summary report of findings, another and concluding management meeting will be conducted, for the purpose of acquainting company executives with the conclusions and recommendations contained in the final report. Three copies of the report will be made available for the convenience of management.

Mr. S. F. Patyrak was selected by management to act as the company liaison man with the Air Force survey team.

SUMMARY AND RECOMMENDATIONS

The following pages contain brief summary comments with recommendations on subjects which have been covered in detail in the body of this report.

*Summary of events relative to improper utilization of manpower July 5, 1951, to December 8, 1952*

Comments: Review of the exhibit indicates that excessive idle time and/or overmanning of work stations has existed since July 1951, culminating in the Air Force administrative contracting officer withholding payment on 2 vouchers amounting to \$696,840.75, on December 12, 1952.

Recommendation: That the contractor and the Air Force plant representative immediately review all previous data contained in this exhibit, together with this labor utilization survey report, taking such necessary action as required to solve and correct the numerous inefficiencies advanced throughout this document.

*Total number of employees*

AIRCRAFT

	Plant <sup>1</sup>		Office <sup>2</sup>		Total	
	Men	Women	Men	Women	Men	Women
Dec. 1, 1952	4,033	635	1,315	501	5,348	1,136
Jan. 1, 1952	2,774	122	503	221	3,277	343
Increase	1,259	513	812	280	2,071	793
Grand total increase					2,864	

See footnotes at end of table, p. 199.

*Total number of employees—Continued*

## AUTO-AIRCRAFT (ALLOCABLE)

	Plant <sup>3</sup>		Office <sup>4</sup>		Total	
	Men	Women	Men	Women	Men	Women
Dec. 1, 1952.....	3,680	298	1,817	781	5,497	1,079
Jan. 1, 1952.....	3,285	224	1,390	511	4,675	735
Increase.....	395	74	427	270	822	344
Grand total increase.....					1,166	

<sup>1</sup> Includes hourly employees in aircraft departments, does not include allocable.

<sup>2</sup> Includes exempt, nonexempt, and foremen, does not include allocable.

<sup>3</sup> Includes hourly employees in auto-aircraft services, allocable departments but does not include finance or executive departments.

<sup>4</sup> Includes exempt, nonexempt, and foremen.

*Total number of employees*

Comments: The above chart presents an interesting study of the employment trends in the several categories indicated with the significant fact that the employment of increasing numbers of women workers shows a trend which will probably continue when it is again necessary to resume an active hiring program to support future schedules of aircraft production. In January 1952, only 4 percent of plant workers were women. During 1952, 25 percent of all new plant hires were women, which raised the overall percentage in the plant to 7 percent.

Recommendation: See comments and recommendations under women workers.

*Employees by shifts*

Comments: The company is unable to break down male and female employees by shifts; therefore, the contractor is unable to determine whether or not men and women are performing comparable tasks on the various shifts, as an indication of the number of additional women that could be used conveniently.

Recommendation: It is recommended that the company immediately take steps to ascertain the number of male and female employees by shifts to accomplish the aim outlined above. See comments and recommendation under women workers.

*Direct and indirect workers*

Comments: Information furnished by the company on numbers of direct and indirect workers, are inconsistent and further are at variance with information furnished to AMC on AMPR's. It is evident therefore that no consistent understanding or interpretation of what are direct and indirect workers exists. Basis for estimating labor requirements by use of learning curves, therefore cannot be consistent or comparable with other aircraft production. (See discussion of direct and indirect workers in body of the report.)

Recommendation: That the contractor immediately accept and use the AMPR definition of direct and indirect workers and establish records accordingly. A consistent method, approved by the AF plant representative's office of changing allocable employees, broken down by the AMPR definition of direct and indirect employees, should also be adopted.

That a followup survey be made at a later date to determine the degree of excessive idle time existing among the indirect and allocable personnel since observations in this survey deal only with production workers. (Also see direct and indirect workers in body of the report.)

*Workweek*

Comments: Kaiser-Frazer is currently working a 5 day workweek, 40 hours per week. However, due to some authorized overtime the average hours worked range from 40.3 to 41.4. (See workweek in body of the report.)

In view of the observations made elsewhere in this report under labor relations, it would appear that premium pay for additional hours should be more closely scrutinized by those authorized to grant overtime to reduce the costs of premium pay of production workers and union stewards.

Recommendation: That a continuing review of all premium time granted by supervisors be reviewed for purposes of eliminating habitual tendencies on the

part of management in automatically yielding to every request, which has resulted in excessive costs particularly in reference to union stewards.

*Personnel with previous aircraft experience*

Comments: Of the 747 employees of the company who have had previous aircraft experience, at least 50 percent of them attained this knowledge during recent years. Their combined experience represents a most satisfactory cross-section of the aircraft industry, thereby providing Kaiser-Frazer with a skeleton organization around which to build a satisfactory degree of aircraft production accomplishment.

Recommendation: That the contractor utilize this tabulation of the skills of these people in order to quickly locate the cross section of skills represented to fill vacancies with the best qualified personnel.

*Responsibility and authority*

Comments: It is believed that responsibility and authority could be more clearly outlined. Foreman units are small in comparison to like operations in other aircraft plants resulting in a greater number of supervisory personnel being employed than would otherwise be needed. Scope of responsibility and authority for supervision is ample. However, the quality of supervision should be improved. Improved records being currently set up should better this overall picture providing the contractor makes proper utilization of the information so obtained. The contractor now recognizes the necessity of a complete training program. If the contractor will accept this apparent need and follow through, favorable results should be obtained. The recently established foremen screening committee should improve the caliber of supervisory personnel.

Recommendations: That the contractor immediately—  
1. Outline the authority and responsibility more specifically for all executives administrators, supervisory and production personnel.

2. Decrease the numbers of supervisory personnel. Improve the quality.

3. Initiate a complete training program for all job classifications.

4. Give the newly formed foremen screening committee such assistance, information, and support as required in the accomplishment of their objectives to improve the quality of personnel.

*Industrial engineering*

*Job simplification.*—Comments: There is no job simplification program.

Recommendation: That a job simplification program be organized in order to utilize more women workers and also untrained, unskilled, older and handicapped personnel wherever possible. This should aid in reducing the problems of personnel transportation from excessive distances and also housing problems for immigrant workers.

*Job evaluation.*—Comments: Rate ranges are applied to jobs by classifications. There has been no effort made to evaluate jobs on a formal plan as suggested by the phrase "job evaluation." This condition has not been a detriment to management.

Recommendation: Because of production matters considered to be of a more urgent nature at present, it is recommended that job evaluation be held in abeyance.

*Time study.*—Comments: Actual time studies on aircraft operations are in a minority. Extensive effort is now directed toward estimating time values for individual operations. Standard times, actual or estimated, are not applied to the workload to stabilize the flow of work through production.

Recommendation: Perform more actual studies from which standards may be built. Apply standards to the operation sheet before starting production of an item. Use time study to set the work tempo at a reasonable pace and correct estimated standards accordingly.

*Manhours control.*—Comments: Excessive idle time throughout the plant area shows a decided lack of hour control. Distribution of manpower as now practiced has not been efficient nor economical.

Recommendation: Establish work areas, allocate manhours based upon valid standard hours supplied by industrial engineering, as a result of adoption of the recommendation under time study above.

*Plant layout.*—Comments: Equipment generally is well laid out providing ample working space thereby, the layout should aid and support satisfactory line production. There are, however, some recommendations that would eliminate excessive idle time.



Recommendations: 1. An area utilized solely by the tooling employees to rework tooling should be provided. This area should contain such types and kinds of facilities necessary to accomplish these tasks. By acceptance of this recommendation, the commandeering of standard machinery located in various places of the plant would be eliminated. Provisioning of this type of an area removes a condition causing excessive idle time by holding up machinery and disrupting the flow of the line production of parts.

2. Routers should be relocated adjacent to the flat raw stocks. This action would eliminate bringing the material to the machines and gathering up the scrap and returning it to salvage thereby saving employees' time.

3. An area should be provided for master gages. This is very important as improper care is contributing much to excessive idle time by incorrectly setting tooling from masters gages which have been, as an example, bumped, dropped, etc., thereby affecting the alignment or dimensions of tooling set therefrom. The result is nonfitting components, or assemblies, plus the abundance of scrap which must be materially reduced.

*Methods improvement.*—Comments: There is no organized effort expended on methods improvement.

Recommendation: That management organize and conduct an extensive program with qualified personnel, designed to encourage and use employee participation in the solution of problems.

#### *Production*

Comments: The past and current production accomplishments of the contractor have not been satisfactory to the Air Force. The lack of a well-balanced, properly controlled, efficiently operated production program together with untrained and unqualified personnel, have been a few of the contributing factors which have caused the contractor's weak record of production accomplishment.

Important departments such as industrial engineering as an illustration, is an after-the-fact operation instead of one which predicts and stabilizes future production.

Careful analysis by the survey team of facilities at Willow Run and by the contractor's admission are sufficient to support scheduled Air Force requirements.

Currently, top production management have in the planning and embryo stages several corrective measures, which, if adopted and then fully utilized, look encouraging for the future. To support these programs, a sprinkling of qualified personnel with aircraft experience throughout the Kaiser-Frazer Corp. organizational structure should contribute to improved contractor production results.

Recommendation: That the contractor take all necessary steps as required to support, follow through, and improve the production plans recently initiated, being constantly on the alert to place better qualified and informed personnel in the key positions responsible for the efficient administration of programs as planned.

*Tooling.*—Comments: There still remains a considerable amount of rework to be accomplished on C-119 tooling. It can also be stated that present tooling schedules do not indicate the completion of C-119 tooling before the scheduled date for completion of all C-119 production. A bottleneck on templates corrected to latest engineering appears to be the most significant factor in C-119 tooling delay. Complete records are not available.

C-123 tooling is of sound construction and design. The program seems to be progressing satisfactorily and suitable records are being maintained.

Recommendations: More emphasis and more time be expended on the coordination of C-119 tooling than at present; at the same time, C-123 tooling status must steadily move forward.

A more complete and satisfactory set of records and information on C-119 tooling must be established and maintained. By conforming to the above recommendations, tooling, jigs, and fixtures, by being properly coordinated, will not hold up the processing of all affected production phases of work as is presently occurring in numerous instances.

*Material control.*—Comments: Adequate records and availability of materials present no major problem. An inspection of various areas revealed that material is well kept, areas clean, and records adequate. However, the volume of work indicated that the average of from 40 to 80 material requisitions a day were being processed but there were 6 to 15 employees used in so doing.

Recommendation: It is recommended that the personnel of these departments be substantially decreased. The volume of work in a number of material areas does not require the personnel now employed.

*Production control.*—Comments: Currently adequate production controls are conspicuous by their absence. However, it is possible that the recent establishment of several production controls, which has been stepped up in tempo and increased in number during the process of this survey, if carried through, and given a green light by top management, should materially improve and cause a reduction in the overmanning of stations, and also reduce a considerable amount of excessive idle time.

Recommendation: That top management immediately support a sound production-control program.

*Timekeeping.*—Comments: Basically the mechanics of the present timekeeping system appear adequate.

Recommendation: Checks should be continued by timekeepers to ascertain if supervision is correctly recording time on the crew worksheets.

*Departmental performance rating.*—Comments: At present, there exist no ratings by departments; however, top management has indicated during discussions its intentions toward initiating this type of a report.

Recommendation: That top management immediately adopt a departmental performance rating program.

*Individual performance rating.*—Comments: Currently this type of program is not used by Kaiser-Frazer Corp.

Recommendation: In order to better classify the production performance of plant production employees and their special qualifications, it is recommended that a rating plan as used by various aircraft companies be given serious consideration.

*Labor productivity.*—Comments: As indicated in the body of the report lack of adequate production controls are strong contributing factors in the poor production record of Kaiser-Frazer.

Recommendation: It is again recommended that top management immediately support a sound production control program as a means of increasing labor productivity.

*Unavoidable suspension of work.*—Comments: There is recorded few instances in this report of work suspensions which were unavoidable.

Recommendation: None.

*Plant equipment.*—Comments: Plant equipment throughout the plant appears to have been well chosen and in good condition. In discussions with production management regarding this subject, it was stated that plant equipment was adequate except for the need of spar mills and hydrotels. These facilities, if provided, would eliminate out-of-line production and contribute to a greater utilization of manpower.

Recommendation: That the Air Force investigate the contractors need for spar mills and hydrotels and if it is determined that these items are necessary, take immediate steps to provide them at the earliest possible date.

#### *Subcontracting*

Comments: The subcontracting of sub and major assemblies on the C-119 has been satisfactorily administered. The only major setback in this phase of the operation, has been the corrosion of wings. This condition is being remedied. The recent clarification by Headquarters, AMC, of the division of work and subcontract structure between Chase Aircraft and Kaiser-Frazer should materially aid in contributing to a better understanding of work to be performed on the C-123.

Recommendation: The contractor should be constantly on the alert to prevent recurrence of the above or similar unsatisfactory conditions.

#### *Overmanning of plant in terms of current needs*

Comments: Mathematical computation of estimated standard hours required for scheduled production, interpolated into man-hours available indicates that the overall plant could effectively utilize only 50 percent of the present employees for current production operations. These computations are supported by realization reports of industrial engineering, records of the Resident Air Force Auditor—Auditor General's Office, Inspector General's report under date of November 4, 1952, and the twenty-odd floor observations made at various locations, times, and dates.

Recommendation: Present methods of estimating manpower be supplanted by valid standard hour requirements and by work areas throughout the plant. Furthermore, the survey team suggests that the working force, which cannot be effectively utilized, immediately be reduced to conform with the present and future scheduled output and that supervisory and clerical help be reduced in

ratio to the direct labor force. Reasonable allowances should be made for training time to meet anticipated schedules. At the same time, every attempt be made to increase the quality of the work force through effective training programs and positive recruitment and better utilization of qualified and experienced aircraft production personnel.

*Excessive idle time*

Comments: Floor observations confirmed that excessive idle time exists. Investigation of available records, the nonexistence of other basic production records and the lack of fundamental controls are heavy contributing factors pointing to excessive idle time.

On no previous occasion has this survey team observed such a high portion of workers who were inactive and the work tempo of those who were applying themselves was far below any comparable group of aircraft workers previously studied.

Recommendation: Supervision be instructed and management insist, that all employees for whom there is not a specific task be removed from the payroll. That industrial relations division take immediate steps to rectify their contribution to excessive idle time caused by the absence of a well-balanced personnel and training program. That the industrial relations division study the Buick, Olds, Pontiac Division, General Motors Corp., Kansas City plant union agreements which operation is comparable to that of Kaiser-Frazer Corp., Willow Run, for the purpose of extracting therefrom such information and guidance as might assist this company in improving the working conditions under the present unique and unusual union contract under which Kaiser-Frazer Corp. is now operating.

*Industrial Relations Division*

Comments: This extremely important activity is directed by a vice president, 2 assistants, 7 section chiefs, and 490 employees. The scope of the services provided is broad and the lines of authority are clearly established in the following fields: Labor relations, Personnel services, Training, Plant protection, Wage and Salary administration, Feeding operations.

Related activities wherever medical services and plant safety are provided are also under this division. The only significant deviation from normal practice in the several department arises from the decentralization of personnel records at operating departmental levels where the responsibility is delegated for the maintenance of seniority records, and absence and overtime accountability.

The ratio of those engaged strictly in labor and personnel relations is 1 for each 136 employees. This calculation, because of the allocability aspect, is determined on a plantwide basis and comes within the normal range for these functions within the aircraft industry.

Recommendations: Reserved for subsections dealing with specialized phases of this broad subject.

*Unions involved*

Comments: The United Auto Workers, Local No. 142, CIO, with a membership of 9,461, represents 87 percent of the overall union membership. The Amalgamated Plant Guards of America, Local No. 114, with a membership of 154, represents 1.3 percent of the overall union membership. United Catering, Restaurant, Bar and Hotel Workers, CIO, with a membership of 81, represents 0.7 percent of the overall union membership. Foremen's Association of America, Chapter No. 20, with a membership of 1,192, represents 11 percent of the overall union membership.

Detailed studies and observations will be found in the section captioned, "Labor Relations."

Recommendations: None.

*Labor relations*

Comments: There are two significant clauses in the Kaiser-Frazer agreement which add considerably to management's problems, the first relating to "plantwide" seniority and the second provides for a fixed quota of shop stewards whose duties are solely with union matters even though they are paid their respective classified rates of pay as if they were engaged in productive effort for the company.

The adverse effects of plantwide seniority and the implicit disruption of repeated bumping is obvious. Management is placed in a particularly difficult position in staffing the aircraft operation in an orderly manner. This disadvantage is found nowhere else in the airframe industry. The closest related example of a motor company with a UAW contract, engaged in airframe production is

that of Buick, Olds, Pontiac plant in Kansas City where the supplemental agreement regarding seniority has been realistically developed as follows:

The contractor (BOP) agreed to recognize auto workers seniority rights in terms of transfers to the new aircraft program on the following basis:

Transfers would be scheduled at the company's discretion confined to occupational groupings (job families), and BOP agreed to recognize seniority to the limited extent of providing employment in aircraft production, not to exceed 25 percent of the total number employed, by the end of 12 months from the commencement of operations. This basis of orderly staffing gives management the latitude that experience has dictated is necessary to organize and operate dual production lines on an efficient basis.

While there has been no major work stoppage in the Kaiser-Frazer's aircraft operations during the 2-year period since its inception, the following facts are clear and significant. The bargaining agent (UAW) has progressively gained great influence in the management of the production operations usually considered management functions and in spite of the costly maintenance of a large force of nonworking union job stewards whose sole function is to represent membership in the resolution of their grievances the continuing volume of such localized disputes indicates that there is chronic restlessness which undermines both morale and productivity.

It is a well-established fact that there is an inadequate number of competent skilled workers available to meet the company's responsibility for stepping up both production and quality control standards, and for training and supervision of the rank-and-file workers who are new to aircraft production.

From a strictly labor-utilization standpoint, the survey team finds itself confronted with the unique and paradoxical situation where on the one hand there is an acute shortage of skilled workers, particularly with related experience and on the other hand, observe that there are currently 101 of such critically needed skilled artisans who are on the payroll at their respective skilled rates, and yet have no direct production duties whatever. Their sole function is to represent their members in all matters where there is a conflict between the worker and his supervisor through the means of grievance procedures established under the terms of the contract.

Significantly important detailed accounting on the subject of grievances and the "nonworking steward" system will be found starting on page 63 of the report which reveals the costly extremes which are imposed upon the contractor in the functioning of the union contract.

Recommendations: That management restudy the problem of overtime involvement, wherein stewards are paid premium rates, frequently resulting in fantastic earnings by nonworking stewards, who at times are not even present when overtime of one or more persons is involved and yet are paid time and one-half the hourly rate for all time worked. Further, that management again review the plantwide seniority clause of their current union contract with a view of renegotiating with the union a seniority clause which will permit a more orderly and effective staffing of the aircraft activity.

#### *The hiring program*

Comments: The union-management contractual obligation which requires that the bulk of the manpower required for aircraft be obtained through recognition of plantwide seniority and posting of jobs with automotive workers who can qualify being given opportunity to accept even presents, though more qualified workers are available, a decided handicap to successful recruitment in an extremely tight and highly competitive labor market.

The appreciation of an "across the board" system of seniority poses a serious problem in many directions, and particularly is this true of attracting and holding new workers who must weather the 90-day period of continuing uncertainty pending the initial establishment of a seniority status.

This established practice of widespread integration of manpower resources (allocability) poses a very real problem, in efficient administration and at times, obscures the very facts upon which the survey team must depend to properly evaluate manpower utilization.

Recommendations: That a positive plan, in the nature of a "manpower budget" be formulated at the earliest possible time, and thereafter maintained as a guide to current and potential labor requirements. This schedule will, of course, be integrated with, and based upon, aircraft scheduling requirements, obviously requiring in its initial preparation and continuously in its operation, a close working relationship between industrial engineering, personnel, and training.

with coordination responsibility for the latter two lodged with industrial relations, as the policy source.

Additionally, it is suggested that the personnel department be charged with and granted the staff time, to do a much more careful job in the selective process, even and notwithstanding, a decreasing manpower pool from which to draw. Interviewers might most profitably take more time and care in screening those who apply, particularly is it desirable that references be promptly processed on a "preemployment basis," to avoid poor and unstable risks in advance of actual employment.

#### *Labor requirements*

Comments: The company has been able to obtain a sufficient quantity of production workers to meet aircraft production schedules. Since the inception of the Kaiser-Frazer aircraft program and the demand for production direct workers, there has been a shortage of experienced aircraft direct workers, there has been a shortage of experienced aircraft workers such as hand formers, stretch press, riveters, press brakes, mill operators, subassembly and final assembly workers. (Method for calculating labor requirements see manhours control.)

As of November 24, 1952, management stated that no additional employees were needed. On November 28, 1952, the survey team was furnished with a list of 226 male and 20 female for a group total of 246 unfilled aircraft labor requisitions in the company employment office. A close study of these unfilled labor requisitions reflected that the large portion consisted of skills which fall into national shortage categories. The survey team does question, however, the number of people required in some classifications, such as crib attendants, tool grinding and perhaps the need for 43 tool workers at this time. Management further informed the survey team that no additional employees would be required in 30 days, that 1,400 additional employees would be needed in 3 months but no additional employees thereafter for a 6-month period other than the critical classification shortages that exist such as tooling and engineers.

Their forecast was based on the following:

"The forecast that an additional 1,400 people would be required by February 1953 (3 months from date of forecast) is based on the current status of the C-119 program which is currently in production and the anticipated needs of the C-123 project which is being put into production.

"In the above forecast, consideration is given to the slippage which has occurred in the contractor's performance to the C-119 schedule. This adjustment defers the peak requirement for direct manpower on this project for several months, and overlaps the manpower buildup on the C-123.

"A total of 4,300 direct workers will be required on the C-119 program at peak. Of this total 3,600 are currently on the roll, assigned to this project. The difference of 700 employees must be hired by March to meet C-119 demands.

"Direct labor requirements on the C-123 program are at present increasing. This expansion occurs concurrently with the C-119 project and amounts to an increase of 700 people between the present and the C-119 peak. After the C-119 peak occurs and starts downward, these people will be reassigned to the C-123 to meet the expansion of production on that airplane."

While the survey team fully recognized the many-sided difficulties involved in forecasting future labor requirements, it is clear from the foregoing that a wide variation exists in the data which was submitted for study, and upon which a trend could be established as a basis for future recruiting and the accompanying training needs.

Recommendations: That the personnel and training department be provided with a more reliable schedule of future requirements, so that the recruitment of necessary additional workers, in the various occupational groups may be programmed by careful advance planning.

Since manpower stringencies in the Greater Detroit area are likely to contract in the future, much more emphasis will therefore be necessary in training "green" workers, and special attention given to their orderly absorption, under "job simplification methods" usually employed in labor-shortage classifications.

#### *Unfilled labor requisitions*

Comments: As a result of vastly reduced hiring during the past 6 weeks (actually the period of recent layoffs) the number of new workers desired falls with few exceptions into skilled categories, of the "hard to recruit types." Duplicate demands are on file in the Ypsilanti office of the Michigan State Employment Service.

Much emphasis has been placed upon the urgency of the demand for 40 "currently experienced aircraft supervisors" and positive recruitment has been requested through the Ypsilanti office (copy to Lansing State administrative office).

Recommendations: That all requisitions be carefully scrutinized by the personnel director, to provide continuing control over all orders received in the department whether or not the order is for replacement personnel or a new requirement. This delegation of responsibility and the authority obviously necessary to assure rigid compliance with this "conservation policy" is clearly needed, as is the need for better planning and coordination.

#### *Sources of new employees*

Comments: With but few exceptions the company has relied upon the manpower supply of metropolitan Detroit for its labor requirements. However, the demand for industrial workers now exceeds the supply to the extent that much reliance will necessarily have to be placed upon recruiting and training women workers, who can be readily absorbed in light manufacturing. Since there is a continuing and critical need for some 40 experienced aircraft supervisory workers it appears that intensive and positive recruitment will have to be undertaken which then may present opportunities to recruit those not presently engaged in the maximum use of this experience.

Past relationships with the Michigan State Employment Service offices in the adjoining communities have admittedly been helpful, and their facilities for clearing orders to other selected and noncritical areas can be made available.

Recommendations: None.

#### *Michigan State Employment Service*

Comments: The Kaiser-Frazer personnel department and the Michigan State Employment Service have worked closely in a cooperative effort to meet the company's requirements in this area. However, recent efforts to recruit experienced aircraft supervisory workers in a critical area, such as Wichita, might have been avoided by requesting interregional clearance assistance for the company's recruiters, so that any disruptiveness implicit in this approach would have been avoided, and another area might have yielded better results.

Recommendations: Explore with the responsible senior officials in charge of clearance recruiting, the possibilities for meeting the company's immediate specialized demand for experienced aircraft supervisors from areas of logical recruitment without undue disruption of other vital aircraft programs.

Keep the Michigan State Employment Service informed of the results of the recruiting success to plan future manpower requirements.

#### *Interviews and tests*

Comments: Even though there is a dwindling supply of manpower in the Detroit area, it would appear in view of the excessively high rate of turnover that particular attention be paid in the selection process, to the elimination of applicants whose records show instability and apparent unwillingness or inability to remain steadily employed for any length of time. The additional time allocated for this purpose, will be amply justified by results.

Submarginal hiring of either male or female workers is of doubtful value since they are the main contributors to a high rate of attrition during the first 30 or 60 days of their employment.

Recommendations: That interviewers be given refresher training courses and the opportunity to do a better screening job and thereby eliminate a higher percentage of the doubtful risks through the use of long established selection procedure, which are not now employed for the run-of-the-mill types.

#### *Investigations of applicants*

Comment: The company personnel department employs the resources of the various retail credit associations for verifications of previous employments.

Security checks are in line with the customary requirement of establishing citizenship.

Recommendations: That the maximum effort be expended and where possible on a preemployment basis to eliminate doubtful or poor risks from either employment or security standpoint.

#### *Time required to process new workers*

Comments: The fact that only 1 hour is required to physically examine and otherwise induct a new worker suggests that the probability that the simple and direct method stemmed from the heavy volume of new hiring which required

production-line methods to handle such a burden, which frequently amounted to 2,000 men workers a month.

**Recommendations:** As a companion recommendation to that made relative to hiring policies, it appears highly desirable that more care be exercised in introducing new workers to their jobs at Willow Run. More specifically, management might explore the value to be derived from a soundly conceived orientation program for all new workers which would familiarize the worker with such matters as plant security regulations, safety, company rules relating to absence, shop rules, union regulations, hospitalization, etc. This would supplement or reduce the implied responsibility of the foremen whose other duties are more demanding to the detriment of proper handling of all new employees in a uniform and more effective manner. This should all aid materially in reducing the excessive losses of new workers.

#### *The training program*

**Comments:** Since an estimated 80 percent of all new production workers hired during the past year have had no related experience in aircraft, it is considered unfortunate that those responsible for policy have not been more conscious of the dire need for and the value of a comprehensive and formalized training program to equip these unskilled and inexperienced workers to do a more effective job.

In recent months, an adequate staff has been assembled, yet is handicapped by the lack of proper space for demonstration and practice, including provision for some machines, hand tools, and components of certain subassemblies.

**Recommendations:** More comprehensive orientation training through the extension of the presently established 4-hour course for direct employees to all employees, since direct or production workers constitute only about one-third of the total employed.

The basic management course of 40 hours instruction, which is much the same as the popularly accepted and widely utilized supervisory training program, has been provided by the training department to approximately one-half of the Kaiser-Frazer foremen at this time. A close examination by management of the Supervisor's Manual and program outline recently compiled by the Kaiser-Frazer training department, as guide to the conduct of the course, can result in profitable time for all supervision (to men through general superintendent).

With improved facilities which could be made available at a later date, much more emphasis might be given to the vestibule type program for a larger number of trainees who could gain the benefit of technical courses now conducted on a lecture basis.

#### *Induction program (orientation)*

**Comments:** As a direct result of the necessity for using production line methods due to a large volume of new workers, frequently averaging some 2,000 a month, the elements of careful investigation of the workers record with previous employers, etc., were subordinated to the expediency of meeting the demands placed upon the personnel department, and as a result many unstable workers have been hired.

**Recommendations:** Orientation should be established to cover a broader base, and include all new workers.

Interviewers should be given an opportunity to check closely on an applicant's record on a preemployment basis. Screening should be intensified to improve quality, with less emphasis on hiring proper and more on qualifying workers for employment.

#### *Labor turnover*

**Rate of turnover.**—**Comments:** Kaiser-Frazer has the highest rate of attrition in the entire airframe program. The Kaiser-Frazer average turnover rate per month for the 3 months' period ending October 30, was 12.2 percent (production employees) or in effect, on a 12 months' basis, if this average is maintained, a complete turnover of approximately 150 percent is possible for direct workers, whereas the allocable group rate is, by comparison, much lower and more favorable.

**Recommendations:** That the subject be explored fully by the industrial relations department to the end, that the rate be drastically reduced through the improvement of correctable and contributing reasons reflected by complete record keeping, compulsory exit interviewing, and more emphasis on supervisory accountability.

**Accession and net gain or loss.**—**Comments:** During the months of August, September, and October 1952, Kaiser-Frazer hired 3,297 new workers and during the same period lost 2,469 workers reflecting a net gain of 828 employees. While

recognizing, even though a minor point, the selective service losses of 103 worker the fact remains that the impact of such turnover is about as disruptive a influence on production as could possibly occur.

Recommendations: See the recommendations made on this general subject under rate of turnover in this report.

*Rate of turnover production employees.*—Comments: As indicated in general subject and the title of "Turnover," the rate for direct workers is extremely high.

Recommendations: See recommendations as detailed in the several other sections dealing with turnover.

*Rate of turnover by shifts.*—Comments: The company does not keep records of turnover by shifts.

Recommendations: That such statistical studies be incorporated in an overall plan, to record and be guided by such data.

*Rate of turnover by occupations.*—Comments: Turnover studies by occupational groups and classifications are always helpful in discovering and attempting to remedy the worst spots.

Recommendation: Since the problem is acute, definite studies should be made and regular records maintained for guidance.

*Rate of turnover by departments.*—Comments: Departmental experience for comparative studies are not available as a guide to varying conditions and measures required.

Recommendations: A definite system of accounting is recommended reflecting departmental comparability.

*Quit rate by length of service.*—Comments: Data of this type is needed to define an area, in point of time, where quits are at their highest, and where remedies are relatively most urgently needed.

Recommendations: A statistical recording of the above is recommended and such matters as closer screening in the personnel department should be given consideration as such.

*Major causes of quits.*—Comments: The company does not keep records of major causes of quits.

Recommendations: That the industrial relations department formulate a plan to ascertain as accurately as can be determined the major causes of quits for future guidance.

#### *Absenteeism (aircraft division)*

Comments: Since no concrete program exists for combating the disruptiveness arising from vacant stations of unexcused workers, it follows the same logical pattern of reasoning as applied to turnover.

A high rate of absenteeism is said to be a symptom of deeper difficulties, such as idle time and its byproduct boredom. Positive steps should be undertaken through the existing facilities for reducing the problem to a more reasonable level.

Recommendations: Confer with supervisory groups and formulate a system for recording such data for the guidance of management in eliminating some of the avoidable causes particularly on an inplant basis.

#### *Personnel records*

Comments: The survey team is at a loss to understand why the industrial relations division does not maintain more complete records. In this connection, management stated, "The University of Michigan will conduct a survey, a part of which will help determine causes of absenteeism and turnover; however, this survey has not been started due to lack of union cooperation to date."

The apathy of the union in failing to lend its cooperation is regrettable as well as inconsistent in its contractual obligations for assisting management to improve production. However, it is management's responsibility to take the initiative and proceed with its factfinding and recordkeeping.

Recommendations: The logical course should be abundantly clear that management immediately install a system of personnel records recommended throughout this report.

#### *Women workers*

Comments: The labor-relations department states that 7 percent of the direct workers are female.

Based upon the confused direct, indirect, and allocable employee numbers furnished the survey team, the question is interposed as to whether or not this percentage figure of direct women workers is actually correct. It may be pointed out, however, that it has been determined that Kaiser-Frazer Corp. favors employing women for light aircraft production in lieu of employing substandard male em-



ployees. However, inasmuch as the contractor does not have the available records showing the number and percentage of women workers on the various shifts, the question arises as to how can he ascertain whether or not he is making full use of this source of labor which, by his admission, is readily obtainable.

Recommendations: That the percentage of female workers be determined by shifts, whether or not they are performing comparable tasks and if they are, whether or not this source of labor can be obtained in the immediate area alleviating employees coming from long distances.

#### *Wage and salary system*

Comments: Kaiser-Frazer Corp.'s union contract places wages and salaries in line with those paid by the major automobile manufacturers in the area.

Recruitment of special types of new workers and the retention of desired employees presents a real problem. However, inadequate pay scales does not contribute to this condition. Fringe benefits such as cost-of-living adjustment, paid vacations, free hospitalization, and paid holidays are ample under the union-contract agreement.

Recommendation: See labor relations.

#### *Safety*

Comments: The records indicate satisfactory safety experience as compared with like production safety standards in industry. Should the tempo of work increase, it is likely that the frequency of accident and severity rates would increase. Better housekeeping in general such as clear passageways will improve the existent rates. Guards on certain items of equipment may be required. Visual illustrations on bulletin boards showing causes of accidents would be helpful and also a portion of employees training time should be utilized to acquaint personnel with accepted safety practices.

Recommendations: That the safety department make plans to incorporate into the training program, proposed by the company, a portion devoted to acquainting employees with basic safety rules and principles.

#### *Communications*

Comments: The Kaiser-Frazer Automotive and Aircraft News fulfills a very definite need for familiarizing the workers with the various activities of the several phases of the company's operations.

Recommendations: A review of the issue of November 17, while attractive in its layout, particularly the photography, lacked the essential touch of personalizing the bulletin as a medium for promoting good will and the improvement of morale.

#### *Suggestions (incentive program)*

Comments: In keeping with the comments on this subject, to be found in the body of the report, the merit of such a program for the stimulation of initiative and the resultant improvement in morale is worthy of management's early attention.

The development of a program for encouraging employees to make contributions to management, which they believe will improve quality and increase production, with cash and certificate awards, will pay its way countless times during a year.

Recommendations: That management request the industrial relations department to promptly report the relative merits of the several such systems popularly employed in aircraft and related manufacturing industries.

#### *Outplant conditions*

Comments: The question of adequate housing and transportation, in the instance of Kaiser-Frazer's Willow Run operation, is inseparable, since the nearest community, Ypsilanti, is 6 miles distant, and in turn as the nearest point, supplies only 17.6 percent of the present employees.

Actually in practice since public transportation is both irregular and costly, the problem is met by use of personal auto and car pools. Many residents commute as far as 35 miles daily.

Recommendations: In future, recruitment consideration should be given to utilize more women, older and handicapped workers, who are available in the immediate area as a means of reducing the import of these outplant conditions.

#### *Distribution of engineering personnel*

Comments: In a broad sense, the attached report indicates that the contractor needs improvement in the quality of the engineering staff rather than the additions of personnel based on a comparison with other aircraft companies—"too many

chiefs and too few Indians"—figuratively speaking has increased the requisitions for these types of personnel.

Recommendations: That the contractor screen the present staff of engineers with a view of utilizing the better qualified engineers only on work requiring their talents and breaking down tasks so that less skilled people can be used in jobs requiring less skill and then eliminating those few who do not have sufficient background or qualified knowledge. Every endeavor should be made to raise the standard requirements of all future engineering talent employed.

#### *Upgrading and transfers*

Comments: Contrary to the expressed opinions of the Industrial Relations Department which maintains that upgrading and transfers from automotive to aircraft operate satisfactorily, facts indicate such actions are effected in many instances on a basis of other than a satisfactory qualification standpoint. Closer coordination between the Labor Relations Department and the newly formed Foreman's Screening Committee should improve materially that department's altogether too lax policy of upgrading of employees in recent months.

Recommendations: That the labor relations division endeavor to improve the quality of their upgrading and transfer procedures by acceptance of those requisites established by individuals charged with future actions of the personnel upgraded or transferred.

#### SIGNATURE PAGE

The survey team:

GUY A. WHITCOMB,  
*Chief, Labor Utilization Section, Industrial Manpower Branch, Industrial Resources Division, Hq, AMC, United States Air Force.*

W. S. BAGLEY,  
*Industrial Specialist, Labor Utilization Section, Industrial Manpower Branch, Hq, AMC.*

LARRY DESMOND,  
*Industrial Specialist, Labor Utilization Section, Industrial Manpower Branch, Hq, AMC.*

Management representatives:

We have discussed this report with the survey team and received three copies of same.

JOHN HALLETT,  
*Executive Vice President, Kaiser Manufacturing Corp.*

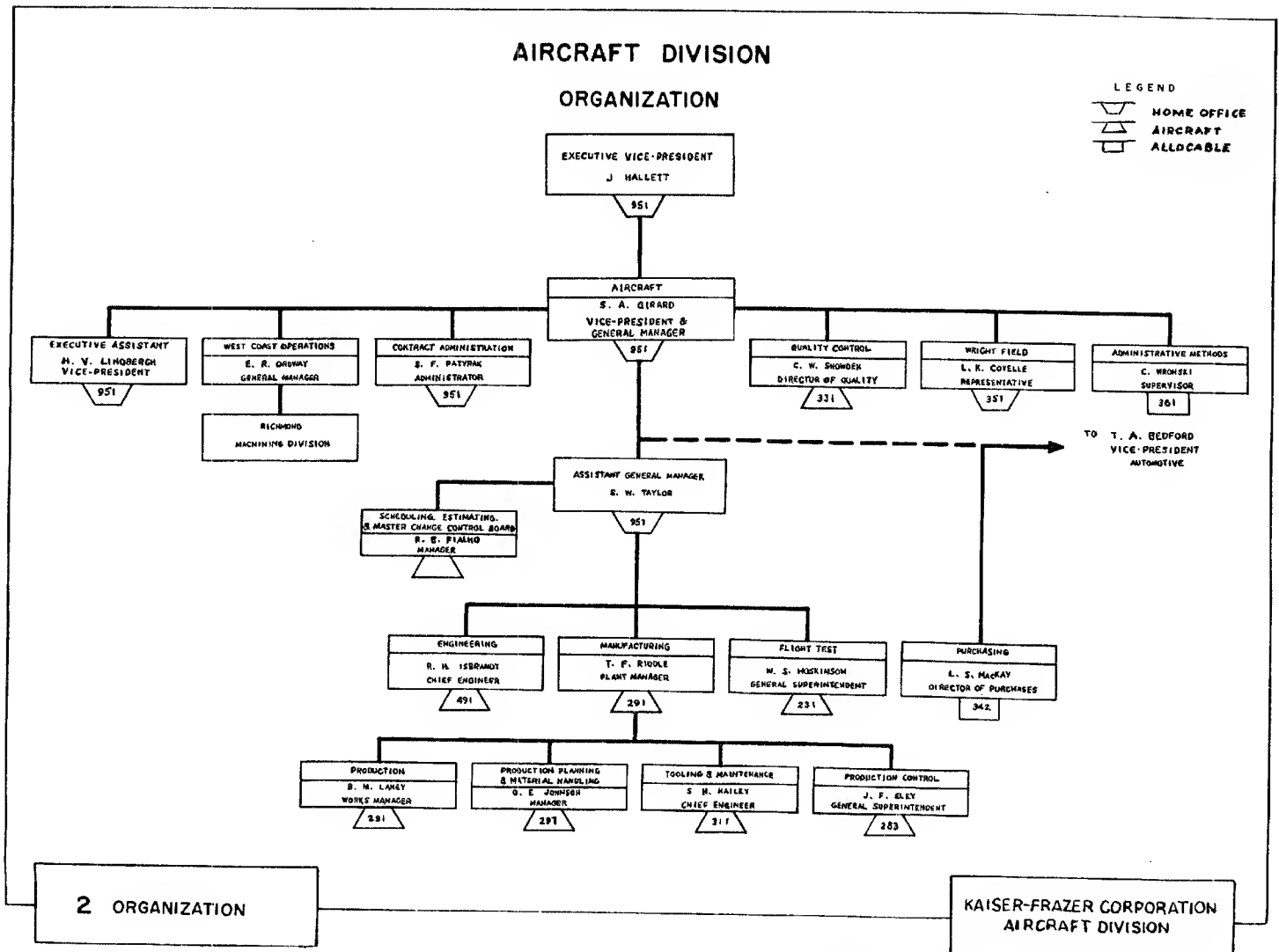
S. A. GIRARD,  
*Vice President and General Manager A/C, Kaiser Manufacturing Corp.*

S. F. PATYRAK,  
*Defense Contracts Administrator, Kaiser Manufacturing Corp.*

Follow-up survey call will be made by one or more members of the survey team in about 90 days.

#### PERSONS INTERVIEWED DURING SURVEY

J. Hallett, executive vice president  
S. H. Girard, vice president and general manager  
S. W. Taylor, assistant general manager  
H. V. Lindbergh, vice president  
W. B. McLaren, vice president, industrial relations  
T. F. Riddle, plant manager  
S. F. Patyrak, defense contracts administrator  
B. M. Laney, works manager  
R. B. Fialho, manager, schedule and estimating  
W. S. Hoskinson, general superintendent  
O. E. Johnson, production planning and material handling  
S. H. Hailley, tooling and maintenance  
J. F. Eley, general superintendent  
W. Malinowski, chief industrial engineer  
R. Davenport, general superintendent  
L. J. Keating, chief plant engineer  
A. V. Fant, chief tooling engineer  
T. Girouard, general superintendent  
H. Brown, general superintendent  
A. J. Bedworth, general planning superintendent  
W. V. Gillette, general superintendent



C. B. Woodell, staff assistant  
H. Fry, assistant works manager  
M. R. Sturdivant, general superintendent  
S. King, staff assistant  
F. R. Schroeder, staff assistant  
M. T. McNulty, administrative manager  
R. P. Hicks, scheduling and estimating  
W. Fenchuk, production engineering  
Wm. Eastman, director, labor relations  
D. Martin, assistant director, labor relations  
F. Shoup, director of training  
L. Kirby, coordinator, management training  
J. H. Backus, personnel director  
R. Thomas, assistant personnel director

SUMMARY OF EVENTS RELATIVE TO IMPROPER UTILIZATION OF MANPOWER

(July 5, 1951, to December 3, 1952)

Chronologically listed in the attached exhibit appear 26 separate actions taken by Air Force representatives, each presenting corrective measures, for the purpose of eliminating excessive idle time at Kaiser Manufacturing Corp.

*July 5, 1951*

Letter to contractor signed by Major Ulrey requesting tighter control of personnel by contractor.

Colonel McDuffee, deputy commanding officer, Central Air Procurement District, held a meeting with the contractor and personnel from this office relative to above letter. K-F executives appeared to be aware of the situation and under pressure promised to take immediate steps to correct the various labor irregularities.

Local contracting officer, Lieutenant Westlund, refused to authorize overtime work until such time as the contractor presented an acceptable plan for eliminating the malpractices.

*July 6, 1951*

Letter from contractor to AFPR outlines intended course of action on above.

*July 9, 1951*

Interoffice correspondence to all manufacturing supervision, signed by operations manager, instructs them to take immediate action to correct referenced irregularities.

*September 10, 1951*

Meeting with management, resident USAF Auditor General and AFPR for purpose of discussing certain conditions causing excessive costs to the Air Force; one item was loading.

Plant protection was instructed to institute a more vigorous surveillance of this condition and report badge numbers and names of offenders to the works manager.

*January 21, 1952*

Letter to executive vice president and general manager, with copy of resident auditor's letter to AFPR of same date attached, which requested the contractor to show just reasons why he should hire labor at the rate then being exhibited or to decrease the rate of hiring to such an extent so as to fully utilize all personnel.

*January 31, 1952*

Meeting was held in Col. Russell Keillor's office. In attendance for procurement were Colonel Keillor, Lt. Col. George A. Miller, and Lieutenant Colonel Ulrey; for the Auditor General, USAF, Mr. P. H. Ramp and Mr. Sidney C. Solomon.

The Resident Auditor General's letter to the AFPR of January 21, 1952 and the AFPR's letter of same date, referenced above, were discussed. The group agreed that upon receipt of the contractor's answer, the resident auditor would institute a plan of floor checks in order to determine the proper dollar value of disallowances to adequately protect the Government's interest.

*February 1, 1952*

Conference held by the AFPR with executive vice president and general manager, in which the AFPR stated that it was the opinion of the local Air Force office that the top management did not have control of their operations.

*February 2, 1952*

The executive vice president and general manager held a meeting with Mr. Solomon and Lieutenant Colonel Ulrey, with top corporation personnel in attendance, at which the lack of management control was thoroughly discussed.

*February 7, 1952*

Mr. Hallett called a meeting in his office for the purpose of organizing a joint AF and KMC procedures policy committee. This committee is composed of executives of the corporation; the USAF Resident Auditor General; the AFPR and members of his staff. This committee has been of considerable benefit in eliminating manning discrepancies; however, it has not been a cure-all, and continued followup on manpower problems has been necessary.

*February 14, 1952*

Letter from Mr. Hallett to the AFPR in answer to his letter of January 21, 1952, referenced above. This letter explained reasons for the observed idle time and outlined steps being taken by the corporation to reduce the excessive amount of idle time.

*February 21, 1952*

Letter from the AFPR to the Resident Auditor General, which forwarded Mr. Hallett's letter, referenced immediately above, with a request that Mr. Solomon review to encompass adequacy of intended corrective action and surveillance of compliance with the contractor's proposed plan of control.

*During February 1952*

Over 1,000 direct hourly aircraft workers were laid off during this month as a result of Mr. Solomon's and the AFPR's letters of January 21, 1952.

*March 14, 1952*

A meeting was held in Lieutenant Colonel Miller's office at district headquarters (Directorate of Procurement Administration). In attendance for procurement were Lt. Col. George A. Miller, Lt. Col. Russell Burkholder, Capt. F. P. Bretney, Mr. James Robbins, and Lieutenant Colonel Ulrey. For the Auditor General, USAF, Mr. L. N. Teitelbaum, Chief, Industrial Audit Division, Auditor General, USAF, Mr. P. H. Ramp, and Mr. Sidney C. Solomon. Manpower was just one phase of this conference and it was the procurement officer's impression that the three representatives of Audit present concurred that our approach to this manpower problem was feasible and adequate. They further stated that due to insufficient personnel to adequately determine the amount of excessive idle manpower, the conditions would have to be a matter for negotiation.

*April 4, 1952*

A meeting was held in Mr. Hallett's office at which all of the top executives of the corporation, including Mr. Edgar Kaiser, were in attendance; as well as Col. N. R. Graalman from Headquarters, AMC; Col. Russell Keillor and members of his staff from CEAPD; Lt. Col. Wm. H. Walker, Chief of the District Auditor General's Office and Mr. P. H. Ramp from that office; the AFPR; the ACO; and the Resident Auditor General. The following agenda was pursued:

- (a) Strong negotiation effort to be exerted by the contractor in the new aircraft supplement to the union contract.
- (b) Plantwide seniority should be limited.
- (c) Higher standards for aircraft inspectors.
- (d) Progress on reaudit and reaccounting in 1951 labor and overhead costs.
- (e) Definitive schedules for both the C-119 and C-123 programs must be realistic and should be expedited.
- (f) A training program should be put into operation at the earliest possible time.
- (g) A continuous vigilance to match manpower with requirements.

*May 15, 1952*

An aircraft procedure Manpower Utilization and Performance—Short Range was published this date as promised in contractor's letter of February 14, 1952.

*June 3, 1952*

A letter was sent to Headquarters, AMC, signed by the AFPR, which outlined some unfavorable labor conditions and requested that a labor utilization survey be conducted by the AMC team.

*September 23, 1952*

Mr. Guy Whitcomb, Civilian Chief of the Labor Utilization Office at AMC held a meeting at Willow Run with the executives of the corporation and the AFPR, at which time, Mr. Whitcomb offered the services of his survey team to Kaiser-Frazer Corp. Kaiser-Frazer management agreed to consider the feasibility of requesting their services and after several followups by the office of the AFPR, they advised this office on October 30, 1952, that they would not request the services of the survey team.

*During first week of October 1952*

A meeting was held in Mr. Hallett's office with top management from the finance division in attendance, as well as the AFPR, the Resident Auditor General, and the local contracting officer. The local AF office presented their estimate of idle time from a quantitative standpoint.

*October 31 and November 4, 1952*

Meetings were held in Mr. Edgar Kaiser's office on these two dates at which time improper utilization of manpower from a penalty standpoint was discussed.

*November 24, 1952*

Mr. Whitcomb, chairman of the AMC labor utilization survey team explained to a large group of KMC and AF personnel the method of operation that they intended to pursue in conducting their labor utilization survey which had been requested to be made by General Bradley.

*November 26, 1952*

A meeting was held in Mr. Hallett's office, at which time Captain Chance, the local contracting officer, requested the following action be taken by the contractor:

- (a) Kaiser Manufacturing is to submit a report covering the subject: What has been done to reduce apparent idle time?
- (b) Establish, in the chart of accounts, an idle-time account.
- (c) The report and the establishment of an idle-time account should be accomplished by the end of next week; otherwise, Captain Chance stated that he would withhold processing of vouchers.

*December 2, 1952*

At a meeting attended by Lieutenant Colonel Ulrey and Captain Chance, the contractor was requested to present a letter indicating progress made to date to relieve the idle-time situation, their plan to correct the situation and establishment of an idle-time account. Contractor was given until the 12th of December to reply or vouchers would be held up for payment. As of December 12, 1952, Captain Chance withheld \$696,840.75 from payment by holding 2 vouchers.

TOTAL NUMBER OF EMPLOYEES

*Employment information*

AIRCRAFT

Month	Plant <sup>1</sup>		Office <sup>2</sup>		Total	
	Male	Female	Male	Female	Male	Female
Jan. 1, 1952.....	2,774	122	503	221	2,896	343
July 1, 1952.....	3,679	151	863	392	4,542	543
Aug. 1, 1952.....	4,397	161	1,002	413	5,399	574
Sept. 1, 1952.....	4,469	177	1,134	463	5,603	640
Oct. 1, 1952.....	4,547	632	1,259	497	5,806	1,129
Nov. 1, 1952.....	4,346	662	1,358	541	5,704	1,203
Current Dec. 1, 1952.....	4,033	635	1,315	501	5,348	1,136

See footnotes at end of table, p. 214.

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AIRCRAFT PROCUREMENT

TOTAL NUMBER OF EMPLOYEES—continued

Employment information—Continued

AUTO-AIRCRAFT SERVICES (ALLOCABLE)

Month	Plant <sup>3</sup>		Office <sup>4</sup>		Total	
	Male	Female	Male	Female	Male	Female
Jan. 1, 1952.....	3,285	224	1,390	511	4,675	735
July 1, 1952.....	3,770	245	1,743	720	5,513	965
Aug. 1, 1952.....	3,703	240	1,764	681	5,467	921
Sept. 1, 1952.....	3,647	241	1,753	685	5,400	926
Oct. 1, 1952.....	3,747	273	1,769	727	5,516	1,000
Nov. 1, 1952.....	3,806	300	1,809	751	5,615	1,051
Dec. 1, 1952.....	3,680	298	1,817	781	5,497	1,079

<sup>1</sup> Includes hourly employees in aircraft departments. Does not include allocable.

<sup>2</sup> Includes exempt, nonexempt, and foremen. Does not include allocable.

<sup>3</sup> Includes hourly employees in Auto-Aircraft Services—allocable departments but does not include finance or executive departments.

<sup>4</sup> Includes exempt, nonexempt, and foremen.

EMPLOYEE BREAKDOWN BY SHIFTS

Manufacturing as of Nov. 24, 1952 <sup>1</sup>

Shift	Time	Male	Female	Direct	Indirect	Total
1st shift.....	From 11 p. m. to 7:30 a. m.....	(2)	(2)	48	75	123
2d shift.....	From 7 a. m. to 3:30 p. m.....	(2)	(2)	1,800	1,255	2,055
3d shift.....	From 4:15 p. m. to 12:45 a. m.....	(2)	(2)	1,517	755	2,272
Total.....				3,365	2,105	5,470

<sup>1</sup> Aircraft manufacturing departments only.

<sup>2</sup> Information not available. 582 females hired between Sept. 17, 1952 and Oct. 22, 1952. Majority are working on second and third shift.

DIRECT AND INDIRECT AIRCRAFT WORKERS

Information furnished regarding direct and indirect employees has been most confusing to the survey team.

EXHIBIT (A).—Direct and indirect workers as of November 24, 1952

	Number	Percent
Direct.....	3,365	29.0
Plant indirect.....	854	7.4
Other indirect.....	7,368	63.6
Total.....	11,587	100.0

EXHIBIT (B).—Direct and indirect aircraft workers as of Nov. 25, 1952

	Number	Percent
Direct.....	3,800	30.4
Plant indirect.....	862	6.9
Other indirect.....	7,826	62.7
Total.....	12,488	100.0

The visual comparison of the above exhibits (A) and (B) clearly indicates a sample of the thorough confusion existing at Kaiser-Frazer Corp. as to the number and percentage of direct, indirect, and allocable employees, therefore, it can be frankly stated that currently the contractor does not know the correct number of people falling in these categories which should be charged to the aircraft contract.

EXHIBIT (C).—Aircraft direct manpower breakdown on roll by shift—Week ending November 25, 1952

Direct workers on roll	11 p. m. to 7 a. m. shift 1	7 a. m. to 3:30 p. m. shift 2	4:15 p. m. to 12:45 a. m. shift 3
Division 200 (machine and fab).....	53	441	432
Division 210 (sub and major assembly).....		969	635
Division 220 (final assembly).....	51	567	539
Division 231 (flight test).....		59	54
Total direct workers all shifts.....	104	2,036	1,660
Division 200.....			926
Division 210.....			1,604
Division 220.....			1,157
Division 231.....			113
Grand total, direct.....			3,800

Examination of exhibits (A), (B), and (C) and chart on page 13 further confirms the contractor's current confusion. He is totally unable to breakdown his male and female employees and the figures again do not agree.

Much of the survey team's time was consumed endeavoring to correlate factual data on the above figures with AMPR reports, however the efforts were unsuccessful.

Time did not permit the survey team to evaluate the excessive idle time, which obviously exists, among clerical and white-collar workers at Kaiser Manufacturing Corp. It is apparent that excessive idle time among these types of worker may prove to be of an even greater magnitude than that of production employees. It is therefore suggested that a further study on indirect and allocable workers be made at a later date.

WORKWEEK

Five days per week, 40-hour week.

First shift, 11 p. m. to 7:30 a. m.; second shift, 7 a. m. to 3:30 p. m.; third shift, 4:15 p. m. to 12:45 a. m.

HOURS WORKED

Manufacturing division only

1952	1st shift			2d shift			3d shift		
	Hours per day	Days per week	Average hours per week	Hours per day	Days per week	Average hours per week	Hours per day	Days per week	Average hours per week
July.....	8	5	40	8	5	40	8	5	40
August.....	8	5	40	8	5	40	8	5	40
September <sup>1</sup> .....	8	5.17	41.4	8	5.12	41	8	5.16	41.3
October <sup>1</sup> .....	8	5.05	40.4	8	5.04	40.3	8	5.05	40.4

<sup>1</sup> Reasons for overtime (September and October): (1) Outer wing repair and rework; (2) priority shortages affecting subassembly and final; (3) tooling rework and coordination.



PERSONNEL WITH PREVIOUS AIRCRAFT EXPERIENCE

The following pages contain listings of some of the personnel of Kaiser Manufacturing Corp., Willow Run, Mich., with previous aircraft experience.

*Total people with previous aircraft experience*

Key supervision.....	12
Engineering.....	24
Production planning.....	103
Tooling and maintenance.....	145
Quality control.....	125
Production.....	324
Administrative.....	13
Grand total.....	747

*Key supervision*

Name	Experience	Time	Present title
R. B. Flalho.....	Consolidated Vultee, estimating and scheduling. San Diego plant..... Fort Worth plant..... Texas Engineering and Manufacturing Co. North American Aviation, Inc., scheduling and change control.	1 year..... do..... 3 years..... do.....	Manager, estimating and scheduling.
S. H. Hailey.....	Wright Aeronautical Corp., production engineering and industrial methods.	3½ years...	Chief production engineer.
W. G. Hoskinson.....	United States marine aviation, training, mechanics course, crew chief, flight instructions. Ryan Mahoney Aircraft, final assembly and flight mechanic. Alliance Aircraft Corp., superintendent, final assembly and flight. TWA Airlines, chief inspector, copilot and crew chief. Lockheed Aircraft Corp., foreign representative, director of quality control.	4 years.... 1 year..... do..... 9 years..... do.....	General superintendent of flight operations.
R. H. Isbrandt.....	Firestone Aircraft, vice president and general manager.	8 years....	Chief engineer, aircraft.
R. N. Karch.....	USAF: Aircraft maintenance..... Crew chief..... Boeing, assistant chief inspector..... Martin (Omaha), chief inspector..... Southern district, chief, quality control.	1 year..... 8 years.... 12 years.... 2 years.... 5½ years...	Chief inspector, aircraft. Aircraft.
B. M. Laney.....	National inspector. Ford Motor Co. (B-24), general superintendent, all assembly and pre-flight.	3 years.... 4½ years...	Works manager.
W. Malinowski.....	Consolidated-Vultee, industrial engineer.	1 year.....	Supervisor, industrial engineering.
S. F. Patyrak.....	U. S. Navy, Bureau of Aeronautics...	4 years....	Contracts administrator.
T. F. Riddle.....	Chase Aircraft Co., Inc..... Fairchild Aircraft, assistant plant manager. Luscombe Airplane Corp., factory manager. Texas Engineering and Manufacturing Co. (aircraft sheetmetal plant), superintendent. North American Aviation Co., superintendent. Northrup Aviation Co.....	2 months... 10 months... 9 months... 2½ years... 8 years.... 1 year.....	Plant manager, aircraft.
H. F. Vincent.....	Commercial pilot (instrument, and multiengine ratings). Lieutenant colonel, Air National Guard. Lieutenant Colonel, USAF..... A. and B. mechanic..... Aircraft design, tooling, and construction.	20 years... 4 years.... 4 years.... 18 years... 4 years....	General superintendent fabrication and machining.
R. Waotjen.....	Chrysler Corp.....	3½ years...	Project engineer, industrial engineering.
C. Wronski.....	Lockheed Aircraft Corp.....	3 years....	Supervisor, administrative methods.

The following is a list of jobs by department with the experience in years of the incumbent on those jobs. The names of the incumbents while not contained in the report are on file in the offices of the Industrial Manpower Branch, Headquarters, AMC.

<i>Present title</i>	<i>Time (years)</i>
Engineering (department 411):	
Chief engineer, aircraft.....	8
Staff assistant to chief engineer.....	7
Project supervisor, technical group.....	23
Supervisor, engineering, M. R. B.....	9
Project supervisor, engineering.....	15
Supervisor, engineering, electrical.....	4
Project supervisor.....	5
Project supervisor.....	12
Project supervisor.....	4
Project supervisor.....	3
Project supervisor.....	5
Assistant supervisor.....	5
Project supervisor.....	12
M. C. C. B.....	4
Assistant supervisor.....	5
Assistant supervisor.....	2
Supervisor.....	3
Assistant supervisor.....	4
Assistant supervisor.....	5
Assistant supervisor.....	5
Assistant supervisor.....	3
Subcontract coordinator.....	1
Assistant supervisor, M. R. B.....	2
Assistant supervisor.....	1
Engineering total, 24 people.	
Production planning:	
Department 341:	
Assistant general planning superintendent.....	5
General supervisor, planning.....	4
Supervisor, subcontracts.....	5
Assistant supervisor, subcontracts.....	1½
Supervisor, followup.....	4
Assistant supervisor, followup.....	2
Assistant supervisor, expediting.....	4
Assistant supervisor, followup.....	5
Assistant supervisor, CMP.....	2½
Assistant supervisor, GFAE.....	5
Supervisor, office.....	2
Supervisor, scheduling.....	1½
Supervisor, specification and scheduling.....	2½
Assistant supervisor, specifications.....	4
Assistant supervisor, scheduling.....	2½
Assistant supervisor, scheduling.....	4½
Staff assistant, aircraft.....	4½
Assistant general superintendent (department 281).....	4
Superintendent.....	3
Department 281:	
Superintendent.....	7
Superintendent.....	4
Assistant superintendent.....	4
Assistant superintendent.....	5
Assistant superintendent.....	2
Assistant superintendent.....	3
Assistant superintendent.....	2
Assistant superintendent.....	1
Assistant superintendent.....	2
Assistant superintendent.....	6
Assistant superintendent.....	4
General foreman.....	4
General foreman.....	4

Present title	Time (years)
Production planning—Continued	
Department 281—Continued	
General foreman.....	3
General foreman.....	3½
General foreman.....	3
General foreman.....	6
General foreman.....	7
General foreman.....	3
General foreman.....	3
General foreman.....	3
General foreman.....	3
General foreman.....	3
General foreman.....	4
General foreman.....	3
Foreman.....	4½
Foreman.....	1
Foreman.....	2
Foreman.....	3
Foreman.....	3
Foreman.....	4
Foreman.....	3
Foreman.....	4
Foreman.....	3
Foreman.....	1
Foreman.....	5½
Foreman.....	12
Foreman.....	2
Foreman.....	3
Foreman.....	5
Foreman.....	3
Foreman.....	5
Foreman.....	4
Foreman.....	4
Foreman.....	3
Foreman.....	1
Foreman.....	1
Foreman.....	4
Foreman.....	3
Foreman.....	3
Foreman.....	1
Foreman.....	2
Foreman.....	1
Foreman.....	4
Foreman.....	3
Foreman.....	1
Foreman.....	2
Foreman.....	4
Foreman.....	3
Foreman.....	3
Foreman.....	4
Foreman.....	2
Foreman.....	2
Foreman.....	2
Foreman.....	4
Foreman.....	4
Foreman.....	1
Foreman.....	4
Foreman.....	3
Foreman.....	¾
Foreman.....	3
Foreman.....	4
Foreman.....	4
Foreman.....	4
Foreman.....	4
Office supervisor.....	5
Office supervisor.....	2

<i>Present title</i>	<i>Time (years)</i>
Production planning—Continued	
Department 281—Continued	
Supervisor.....	4
Supervisor.....	4
Supervisor.....	4½
Supervisor.....	4
Supervisor.....	1
Supervisor.....	4
Supervisor.....	4
Production planning, total 103 people.	
Tooling and maintenance:	
Department 311:	
Project engineer supervisor (C-119 final assembly).....	3¾
Supervisor (C-119 operation sheet control).....	6½
Administrative coordinator.....	4
Supervisor, tool engineering.....	6
Supervisor, plant engineering.....	37
Supervisor.....	7
Supervisor, tool stores.....	3½
Assistant supervisor, tool control.....	3
Coordinator, tools.....	5
General foreman.....	4
Foreman, tool control.....	8
Foreman, tool control.....	3
Foreman, tool control.....	1½
Foreman, tool control.....	4
Supervisor, tool control.....	7
Supervisor, tool control.....	3½
Foreman, tool control.....	2
Foreman, tool control.....	3½
Foreman, tool control.....	½
Supervisor, tool control.....	4
Foreman, tool control.....	3
Supervisor, tool engineer.....	10
Supervisor, tool engineer.....	6
Supervisor, tool engineer.....	5
Assistant chief tool and die engineer.....	9
Supervisor.....	5
Assistant coordinator of Government-owned facilities.....	4
Supervisor.....	5
Assistant tool and die engineer.....	3
Supervisor, plant engineer.....	5
Supervisor, plant engineer.....	4
Chief, electrical engineer.....	5
Chief, tool and die designer.....	6½
Assistant, chief, tool and die engineer.....	2½
Assistant chief, tool and die engineer.....	7½
Supervisor, project engineers.....	19
Department 312:	
Foreman.....	4
Foreman.....	4
General foreman.....	4
Foreman.....	3½
Foreman.....	5
General foreman.....	1
Foreman.....	3
Foreman.....	4½
General foreman.....	12½
Foreman.....	4
General foreman.....	3
Foreman.....	4
Superintendent.....	4½
Assistant superintendent.....	4
Foreman.....	2
Foreman.....	3¼
Foreman.....	4

<i>Present title</i>	<i>Time (years)</i>
Tooling and maintenance—Continued	
Department 312—Continued	
Foreman.....	2
Foreman.....	3
Foreman.....	3
Foreman.....	11
Foreman.....	3
Foreman.....	1½
General foreman.....	4
General foreman.....	1
General foreman.....	1
General foreman.....	5
Foreman.....	3
Foreman.....	2
Foreman.....	3
General foreman.....	4
Foreman.....	4
Foreman.....	3
Foreman.....	3½
Foreman.....	½
Foreman.....	6
Foreman.....	5
Foreman.....	4
General foreman.....	4
Foreman.....	2½
Foreman.....	2
Foreman.....	3½
General foreman.....	2
Foreman.....	1
Foreman.....	2
General foreman.....	10
Foreman.....	3
Foreman.....	2
Foreman.....	3
Foreman.....	3
Foreman.....	3
Foreman.....	4½
Foreman.....	2½
Foreman.....	3
Foreman.....	3
General foreman.....	3
Foreman.....	5
Foreman.....	4½
Foreman.....	2
Foreman.....	4
Foreman.....	3
Foreman.....	2
General foreman.....	2
Foreman.....	4
Foreman.....	1
Foreman.....	3
Foreman.....	3
Foreman.....	1
Foreman.....	5
Foreman.....	3
Foreman.....	4
General foreman.....	3
Staff assistant.....	2½
Foreman.....	3½
Department 314:	
General foreman.....	6
Foreman.....	1
Foreman.....	4
Foreman.....	5
Foreman.....	3½
Foreman.....	4

<i>Present title</i>	
Tooling and maintenance—Continued	
Department 314—Continued	
Foreman.....	3
Foreman.....	2½
Foreman.....	3½
Foreman.....	4
General foreman.....	4
Foreman.....	9
Department 282:	
Project engineering supervisor.....	¼
Foreman.....	3
Supervisor.....	2½
Supervisor.....	4
Supervisor.....	3½
General foreman.....	½
Foreman.....	3
Foreman.....	3½
Supervisor.....	3
Supervisor.....	1½
Foreman.....	1
Supervisor.....	1½
Supervisor.....	3
Department 288:	
Industrial engineer.....	4
Project engineer.....	6
Supervisor, industrial engineering, aircraft.....	1
Time study.....	5
Industrial engineer.....	2½
Project engineer.....	1½
Project engineer.....	4
Tooling and maintenance total, 145 people.	
Quality control:	
Department 331:	
Chief inspector, aircraft.....	31½
General foreman, layout.....	6
Foreman, layout.....	4
Foreman, layout.....	5
Foreman, layout.....	4
Foreman, layout.....	5½
General foreman.....	7
General foreman.....	7
Foreman.....	½
Foreman.....	2
Foreman.....	4
General foreman.....	2
Foreman.....	1
Foreman.....	2
Foreman.....	3
General foreman.....	5
Foreman.....	4
General foreman.....	4½
Superintendent.....	16
Foreman.....	2
Superintendent.....	4
Foreman.....	1
Foreman.....	11
Foreman.....	5
Radiographic laboratory supervisor.....	3
Foreman.....	3
Foreman.....	6
Foreman.....	4
General foreman.....	27
Foreman.....	10
Flight test mechanic.....	5
Foreman.....	6
Assistant superintendent.....	10

Present title	Time (years)
Quality control—Continued	
Department 331—Continued	
Superintendent.....	8
Foreman.....	1 1/2
Foreman.....	1
Foreman.....	5
Foreman.....	10
Foreman.....	1
Foreman.....	3
General foreman.....	10
Foreman.....	7
Foreman.....	26
Foreman.....	3
Supervisor of metallurgical.....	22
Superintendent.....	13
Assistant superintendent.....	34
Foreman.....	15
Foreman.....	12
Foreman.....	35
Foreman.....	13
Foreman.....	13
Foreman.....	5
General foreman.....	9
Foreman.....	12
Foreman.....	4
Foreman.....	12
Foreman.....	5
Foreman.....	2
Foreman.....	35
General foreman.....	7
Foreman.....	11
Foreman.....	4
Foreman.....	4
Foreman.....	5
General foreman.....	3
Assistant superintendent.....	3
Foreman.....	3
Foreman.....	1 1/2
Foreman.....	5 1/2
Foreman.....	5 1/2
Foreman.....	3
Foreman.....	28
Superintendent.....	10
Foreman.....	1
Foreman.....	6
Supervisor.....	1
Foreman.....	3 1/2
Foreman.....	6
Inspection foreman.....	5
Inspection foreman.....	5
Supervisor, outside inspection.....	2 1/2
Foreman.....	6 1/2
Foreman.....	9
Foreman.....	8 1/2
Foreman.....	5
Superintendent, quality control.....	2
Assistant superintendent quality control.....	2
Supervisor, quality control.....	6 1/2
Master change control representative.....	9 1/2
Certification.....	4 1/2
Quality control engineer.....	5
Quality control man.....	10
Statistician.....	1 1/2
Quality control man.....	8 1/2
Quality control man.....	8
Certification technician.....	1 1/2
Quality control engineer.....	2
Certification technician.....	

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<i>Present title</i>	
Quality control—Continued	
Department 331—Continued	<i>Time (years)</i>
Quality coordinator.....	4¾
Quality control man.....	5
Certification technician.....	2½
Methods analyst.....	4
Supervisor EAI compliance.....	8
Quality control man.....	4
Supervisor, quality control.....	6¼
Quality control man.....	5
Quality control man.....	3
Supervisor, material review board.....	3
Method analyst.....	9
Foreman.....	½
General foreman.....	5
General foreman.....	4
Foreman.....	1
General foreman.....	4
Supervisor.....	10
Foreman.....	2
Quality control man.....	2½
Department 416:	
Liaison engineer, metallurgical.....	6
Metallurgical engineer.....	7
Plant metallurgist.....	7
Liaison engineer.....	5
Chemical engineer.....	4
Chief metallurgist.....	5
Supervisor radiographic.....	3
Supervisor metallurgical.....	3½
Quality control total, 125 people.	
Production:	
Department 200:	
General superintendent.....	20
Assistant general superintendent.....	4
Staff assistant.....	2
General foreman.....	3
Foreman.....	1
Department 201:	
Foreman.....	7
Foreman.....	9
Foreman.....	4
Foreman.....	6
Foreman.....	1
Foreman.....	6
Foreman.....	4
Foreman.....	4
Foreman.....	1
Foreman.....	14
Foreman.....	4
Foreman.....	5
Foreman.....	2½
Foreman.....	3¼
Foreman.....	2½
Foreman.....	3
Foreman.....	1
Foreman.....	1½
Foreman.....	6
Foreman.....	3
Foreman.....	3½
Foreman.....	1½
Foreman.....	3½
Foreman.....	3½
Foreman.....	4¼
Foreman.....	3½
Foreman.....	2



<i>Present title</i>	
Production—Continued	
Department 201—Continued	<i>Time (years)</i>
Foreman.....	1
Foreman.....	2
Foreman.....	3½
Foreman.....	1½
Foreman.....	4
Foreman.....	2
Foreman.....	4
General foreman.....	4
Department 202:	
Superintendent.....	14
General foreman.....	4
General foreman.....	6
General foreman.....	3
General foreman.....	2
General foreman.....	4
General foreman.....	½
General foreman.....	3
Foreman.....	3½
Foreman.....	4
Foreman.....	4½
Foreman.....	4
Foreman.....	5
Foreman.....	5
Foreman.....	4
Foreman.....	1½
Department 211 (2d shift):	
General foreman electrical—cut and sew.....	4½
General foreman machine subassembly.....	3½
General foreman welding department.....	3¼
Foreman handmade parts crib.....	4
Foreman tubing (mock-up).....	3½
Foreman miscellaneous subassembly.....	3½
Foreman miscellaneous subassembly.....	2
Foreman miscellaneous subassembly.....	3
Foreman welding.....	1½
Foreman welding.....	1
Foreman welding.....	2½
Foreman machinist, subassembly.....	3½
Foreman miscellaneous, subassembly.....	2
Foreman miscellaneous, subassembly.....	6
Foreman miscellaneous, subassembly.....	2
Foreman electrical.....	7
Foreman electrical.....	1
Foreman electrical.....	6
General foreman miscellaneous, subassembly.....	4
Foreman cawling.....	6
Foreman.....	3
Department 211 (3d shift):	
Engraving department.....	2
Tubing department.....	6
Miscellaneous subassembly.....	4
Heater assembly.....	3
Heat ducts astradome.....	3½
Small subassembly.....	3½
Tubing and cut and sew.....	5
Electrical soldering.....	2½
Wire cutting.....	2
Harness boards.....	1½
Electrical department.....	3½
Spot welding.....	4
Cowling and welding.....	3
Rivet school.....	3
Rework and salvage.....	3
Rework and salvage.....	2½

<i>Present title</i>	
Production—Continued	
Department 212 (2d shift):	<i>Time (years)</i>
Superintendent fuze.....	3½
General foreman nose section.....	5
General foreman nacelles.....	4½
General foreman side panels.....	3
General foreman tops and auxiliary floors.....	3
General foreman nose section.....	3½
General foreman top and bottom subassembly.....	3
General foreman fuse bottoms.....	4
Foreman forward quarter panels.....	5
Foreman top and bottom subassembly.....	2
Foreman top subassembly.....	½
Foreman fuse side panel structure.....	3
Foreman side panel clean up.....	3
Foreman forward nacelle.....	5
Foreman forward nacelle.....	4
Foreman aft nacelle.....	3½
Aft nacelle foreman.....	4
Foreman panel nose section.....	3
Foreman nose mating.....	1½
Foreman nose clean up.....	2
Foreman auxiliary floor mating.....	3½
Foreman.....	2
Foreman.....	2
Foreman.....	½
Production foreman.....	2
Department 212 (3d shift):	
Foreman nose section.....	2
General foreman nose section.....	3
Foreman nose section.....	1
Foreman nose SA.....	3
Foreman bottom SA.....	3½
Foreman nose section pick-up.....	5
Foreman O. G. structure.....	3
General foreman top and bottom subassembly.....	½
Foreman rear bottom structure.....	5
Foreman nacelle mating.....	2
Foreman fuse top.....	1
Foreman fore and aft floors.....	2
Foreman top subassembly.....	3
General foreman fuse side panel.....	12½
Department 213 (2d shift):	
General foreman CW building.....	2
General foreman CW repair.....	5
Foreman box half mating.....	3
General foreman center wing subassembly.....	5
Foreman landing gear.....	5
Foreman center wing mating.....	3
Foreman.....	3
Foreman CW mating.....	½
General foreman CW mating.....	7
Foreman CW mating.....	4
Foreman tubing installation.....	4
Foreman CW repair.....	2½
Foreman leading and trailing edge.....	4
General foreman.....	3½
Foreman.....	2
General foreman.....	6½
Foreman.....	½
Foreman.....	2
Foreman.....	3½
Foreman.....	2
Foreman.....	4
General foreman.....	2

Present title	
Production—Continued	
Department 213 (3d shift):	
General foreman center wing mating .....	1/2
Foreman center wing bulkheads .....	3
Foreman final station No. 14 .....	3 1/2
Foreman .....	3
Foreman repair station No. 9 .....	3
Foreman final station No. 15 .....	3
Foreman center wing box build up .....	3 1/2
Foreman center wing spars .....	2 1/2
Foreman center wing upper surface .....	4
Foreman center wing section .....	1/3
General foreman center wing section .....	4
Foreman engine dress-up .....	3
Foreman engine dress-up .....	11
Foreman engine dress-up .....	8
Foreman .....	6 3/4
Foreman .....	2 1/2
General foreman .....	2
Foreman .....	1
Department 220:	
Foreman .....	3 3/4
General foreman .....	4
General foreman .....	12
Foreman .....	11
Foreman .....	5
Foreman .....	4
Foreman .....	4 1/2
General foreman .....	4
Foreman .....	2
Foreman .....	3
Foreman .....	5
Foreman .....	3
Foreman .....	3
Foreman .....	2
Foreman .....	11 3/4
General foreman .....	19 13/16
Foreman .....	4
Foreman .....	2
Foreman .....	5
Foreman .....	4
Foreman .....	11
Foreman .....	12
Foreman .....	4
Foreman .....	1 1/2
Foreman .....	5
Foreman .....	15
Foreman .....	7
Foreman .....	3
Foreman .....	2
General foreman .....	4
Foreman .....	10
Foreman .....	4
Foreman .....	7
Foreman .....	3
Foreman .....	5
Foreman .....	3
General foreman .....	11
Foreman .....	6
Foreman .....	5 1/2
Foreman .....	4
Foreman .....	6
Superintendent .....	3
Foreman .....	10
Foreman .....	2
Foreman .....	1
Foreman .....	3
Foreman .....	3/4

<i>Present title</i>		
Production—Continued		
Department 220—Continued		<i>Time (years)</i>
General foreman.....		1
Foreman.....		4
Foreman.....		3
Foreman.....		5
Foreman.....		2
Foreman.....		4
General foreman.....		4
General foreman.....		3
Foreman.....		3
Foreman.....		2
Foreman.....		6½
Foreman.....		8
General foreman.....		4
Superintendent.....		3
General foreman.....		¾
Foreman.....		2
Foreman.....		4
General foreman.....		2
Superintendent.....		4
General foreman.....		4
Foreman.....		5
Foreman.....		7
Foreman.....		1
Foreman.....		4
Foreman.....		1
Foreman.....		3
Foreman.....		3
Foreman.....		5
Supervisor.....		9
Foreman.....		6
Foreman.....		4
Foreman.....		5
Foreman.....		11
Foreman.....		6
Foreman.....		2
Foreman.....		1½
Foreman.....		4
Foreman.....		4
Foreman.....		4
Foreman.....		2
Foreman.....		3
Foreman.....		3½
Foreman.....		2
Foreman.....		4
Foreman.....		4
Foreman.....		4
Foreman.....		7½
Foreman.....		3
Foreman.....		1
Foreman.....		4
Foreman.....		1
Foreman.....		4½
Foreman.....		5
Foreman.....		4
Foreman.....		3½
Foreman.....		1
Foreman.....		5
Foreman.....		10
Foreman.....		11
Foreman.....		7
Foreman.....		2
Foreman.....		5
Foreman.....		3
Foreman.....		3
Foreman.....		1
Foreman.....		3½

<i>Present title</i>	
Production—Continued	
Department 220—Continued	
Foreman.....	6
Foreman.....	1
Foreman.....	1
Foreman.....	5
Foreman.....	3½
Foreman.....	4
Foreman.....	5
Foreman.....	3½
Foreman.....	3
Foreman.....	5
Foreman.....	2
Foreman.....	3
Foreman.....	4
Foreman.....	2
Foreman.....	2
Foreman.....	5
Superintendent.....	5
Foreman.....	4
Foreman.....	1
Foreman.....	8
Department 231:	
Chief pilot.....	8
First pilot.....	7
First pilot.....	4
Copilot.....	21½
First pilot.....	17
Copilot.....	12
Copilot.....	10
Flight engineer.....	13
Flight radio operator.....	4
Superintendent of hangar and ramp operations.....	11
General foreman.....	5
Foreman.....	18
Foreman.....	14
Foreman.....	5
Foreman.....	8
Radio-Electrical repair.....	1
Foreman.....	7½
Foreman.....	21
Foreman.....	9
Foreman.....	12½
Foreman.....	5
Foreman.....	6
Foreman.....	9
Foreman.....	22
Foreman.....	9
Foreman.....	10
General foreman.....	20½
Foreman.....	14
Total production 325 people.	
Administrative (department 291):	
Coordinator air quality.....	4½
Coordinator air quality.....	1
Assistant supervisor, shop liaison.....	8
Coordinator air quality.....	4½
Flight test-production coordinator.....	14
Coordinator air quality.....	4
Supervisor, shop liaison.....	4
Supervisor, MCCB.....	4
Coordinator air quality.....	2
Coordinator air quality.....	6½
Coordinator air quality.....	4
Staff assistant aircraft.....	1
Shop liaison.....	½
Shop liaison.....	3
Total administrative, 13 people.	

#### RESPONSIBILITY AND AUTHORITY

Responsibility and authority affecting important matters relative to aircraft is under the personal direction of Edgar F. Kaiser, who is president of both Kaiser Manufacturing Corp. and Kaiser-Frazer Corp. The Kaiser Manufacturing Corp. is a wholly owned subsidiary of Kaiser-Frazer Corp. and is a corporate entity created in order to aid cost control and other matters dealing with aircraft production. The Kaiser Manufacturing Corp. have re delegated all manufacturing responsibilities to Kaiser-Frazer Corp. Except for minor differences in the board of directors the officers of the Kaiser Manufacturing Corp. also hold the same relative position in the Kaiser-Frazer Corp., therefore, for purposes of production analysis contained in this report, responsibilities of the Kaiser-Frazer and Kaiser Manufacturing Corp. are considered identical. Since all production employees are on the payroll of Kaiser-Frazer Corp. all future reference in this survey will be made to Kaiser-Frazer rather than Kaiser Manufacturing Corp.

Line responsibilities, on policies, are established and coordinated by the general manager with various department heads. The survey team points out that the aircraft organizational chart furnished the survey team on its arrival to Willow Run, does not reflect a director of industrial relations for the aircraft division. The director of industrial relations serves in a dual capacity at Willow Run, administering both aircraft and commercial functions.

Obviously final decisions by supervisory personnel, are dependent on the scope of the individual's qualifications. It is believed that a substantial portion of the supervisory personnel do not possess the background and knowledge required by their position. As a result of the existent condition high echelon authority must give freely of their valuable time to implement required actions and provide needed answers. Some relief from this condition is acknowledged. (See Personnel with aircraft experience.)

The aircraft division has plant committees, the most important of which is the MOCB (master change control board). Its functions are to coordinate all EAI's and ECP's with the following departments: planning, tooling and maintenance, quality control, purchasing, production control, estimating and perform such other liaison duties as required. This board has been in operation since February 20, 1952.

There are four other operating committees, namely: the salvage committee whose duties it is to review rejected material and ascertain if portions thereof can be reclaimed; the shop liaison committee whose duties are to review rejections and provide corrective measures; the cleanup committee which makes weekly inspections of plant departments; and the recently established foreman screening committee inaugurated to review supervisory applicants' qualifications.

#### INDUSTRIAL ENGINEERING

*Work simplification.*—There is no active work simplification program. No thought or effort is directed toward the establishment of such a program.

*Job simplification.*—No formal plan of job simplification is utilized by the contractor. Visual observation does show the use of handicapped workers.

*Job evaluation.*—Job evaluation in its strict sense is nonexistent. At no time during the meeting attended by the manpower utilization survey team was there any reference of having established basic weights on key jobs to establish workable job classifications. Such factors as skill and mental requirements, fatigue, repetition, mental and visual demands, responsibility are but a few of the basic weights to which referred.

Questioning management as to whether or not various departments such as wage and salary, medical, and safety departments had job description, it was not known and only the employment department had job descriptions.

Audits of personnel on specified jobs are not made to determine measure of skills.

Job analysts are not used to periodically review jobs and reflect changes in rate in accordance with changes in job overall requirements.

*Time study.*—The contractor has some time studies available for aircraft operations. There is no concentrated effort being made to procure an actual measured work pace. There are not enough actual time studies available to set an actual individual work task, a departmental work task or a labor budget. Present effort is being expended toward the estimating of standard hours allowed by individual operations. Neither estimated hours or actual hours as they pertain to either the single operation or the total task are supplied to production personnel.

*Man-hours control.*—Manpower needed was first based upon the learning curve of other aircraft producing companies. No effort was made to guide this manpower utilization by work groups, work centers or departments.

Later manpower estimates were based upon the cost of producing the first planes. There is no valid method used for ascertaining the manpower needed for the present schedule.

If and when time studies or valid estimated time standards are applied to operations, by the recently established work centers, realistic manpower needs by schedule may be determined.

*Plant layout.*—Raw stock transportation is not excessive, in process material flow is good, departmental storage space is ample, terminal stock rooms are conveniently located, tool supply rooms are being relocated for better control and availability, scale model of aircraft area is excellent.

*Methods improvement.*—There is no evidence of any attempts at methods improvements. No individual or department is charged with this responsibility. Organized channels for employee participation in methods improvement are nonexistent.

#### PRODUCTION

Kaiser-Frazer Corp. has not, up to the present, made use of the benefits which may be derived from a wellrounded out and basically sound production program. The company has made many promises in the past which have not been adhered to, as this survey clearly indicates.

Until the last 2 or 3 months, little, if any, constructive efforts by the contractor to rehabilitate the faulty direct production structure, initiated some 24 months past, has been made.

The original tooling known as the Omaha package was inadequately checked preceding its release for production. (The above reference is applicable to C-119 aircraft production only.) C-123 tooling appears to have received a higher degree of attention so; therefore, visually its important aspects are not so clouded.

Valuable aids for future planning such as: machine and manpower utilization records, individual and departmental performance ratings, have been overlooked by Kaiser-Frazer Corp. administrative personnel, having the authority to initiate the use of such records, which would contribute to better production performance. The present production control department exerts influence comparable to an order-writing operation.

Industrial engineering at Willow Run operates for all intents and purposes, as an after fact concept of events, instead of influencing, stabilizing, and predicting future production.

Physically, the future picture is bright. Equipment is adequate and in good condition. Machine tools are well layed out and material control perceptibly operates on a sound basis.

Kaiser-Frazer Corp. now has on its rolls several capable employees in key supervisory positions who have had aircraft experience. Through the combined efforts of these men and their thorough explanation of the manner and approach which they propose to follow aimed at correcting existent Willow Run conditions. Their actions, if followed, should exemplify a resultant exhilarating production picture. While there was no admission by this personnel of their acknowledgment of the overall weak Willow Run production picture, the high tempo of their industry clearly indicated that they were fully aware of its existence.

The survey team, however, regards this excellent procedure picture as another promise which will not be met, unless top management gives these men the green light on the principles and procedures as outlined.

##### 1. Tooling for C-119 aircraft

(a) There is no doubt that tooling on C-119 aircraft is deplorably incomplete. It is the opinion of the manpower utilization survey team that this condition is primarily caused by improper coordination of correct engineering data. It is very obvious that the principal contributing factor in stating that tooling is causing excessive manpower waste is that loft lines on this aircraft provided Kaiser-Frazer Corp. at the inception of the C-119 tooling program were not correct. While efforts have been made to incorporate latest ECP's and EAI's much still remains undone.

(b) Corrected engineering design changes, on tooling since February 20, 1952, incorporating latest EAI's total approximately 3,000 and in addition to these changes approximately 201 ECP's (major changes) have been processed up to the date of the report.

(c) A spot check at the machines indicate that in a great number of instances production equipment on the floor is shut down with signs thereon "held for tooling." To further emphasize this point a list of (A) priority shortages in 1 superintendent's department indicated some 27 tools required to clean up this production could not be located to run some small half-dozen of priority parts. It is not known whether this is a tool-control problem, whether the tools have been fabricated, or whether they were not O. K.'d by inspection for production.

(d) The master gages effecting this program according to information received from top-tooling management, are presently reasonably well coordinated with latest EAI and ECP changes. This appears to be the one bright spot in the C-119 tooling program at Willow Run.

(e) In a meeting attended by top-production management and members of the manpower utilization survey team, the subject of templets was thoroughly discussed from the time the Air Force purchased the Omaha package up to the date of this report. (No minutes of this meeting were taken.) However, it was definitely brought out that templets for basic tooling were traced or scribed (not using master-loft lines) at a later date stamped without inspection as master tooling templets by Kaiser-Frazer Corp. employees. These templets were then forwarded to tool vendors and used as master lines to fabricate all types and kinds of tooling. It is believed that the evidence above can be documented and it is pointed out that all man-hours utilized in the manufacture of tooling, parts, subassemblies, major assemblies and up through the production of the end item, was a total loss as affecting that part or those portions into which incorrect engineering design had been incorporated.

(f) As a result, of the above related existent conditions, personnel waits for tooling and/or tooling information, machines stand idle, flow of work is not in station, schedules are disrupted, tooling is held up for rework, general flow of all production phases does not run smoothly, confusion is general, and therefore, excessive idle time runs rampant plantwise as a result of incorrect C-119 tooling.

## 2. Tooling on the C-123 aircraft

(a) Tooling on the C-123 aircraft presents a much brighter picture than the C-119.

(b) Of the indexes 17 through 9 requiring 1,700 families of assembly tooling, 1,530 units or 90 percent have been built and 460 units or 27 percent have been O. K.'d for tryout as of November 28, 1952.

(c) Of the detail tool families totaling 12,300 units required 11,500 or 93 percent have been built, and 6,500 or 57 percent have been O. K.'d for tryout as of November 28, 1952.

(d) To the manpower utilization survey team, there appears to be greater emphasis placed on the C-123 tooling program, perhaps in some instances to the detriment of the C-119 tooling program.

(e) (A) priority shortages on December 4, 1952, totals 48, and ident shortages totals 430, indicating that the tooling status, while not complete, is in accordance to reasonable production standards moving satisfactorily to the desired position.

(f) Checks on the floor indicate instances where C-123 tooling is contributing to excessive idle time however, in the opinion of the manpower utilization survey team it is believed that with diligent and proper tooling administration, C-123 tooling, providing present progress is maintained, will contribute much to keeping excessive idle time to a minimum.

**Material control.**—Material shortage is not a major cause of excess idle time among production workers. Inventory control cards display the date and type of transaction and the actual balance on hand. There is no record of the allocation of material to a specific order, the availability of material for future orders or the scrap factor of fabricated parts. Lead time for purchased items is furnished by the purchasing departments. Expeditors and outside followup men are under supervision of this department.

**Production control.**—Production control as such, is nonexistent. There is no correlation of schedules between departments within the factory. Orders are given to a department at the request of supervision or when a visual check shows a department to be out of work. There has been no attempt to group orders of like parts. Orders are not placed on an economical run basis. Tool family acceptance is not complete before order placement. There is no concept of man-hours needed per order, either estimated or actual.

**Time keeping.**—Department supervision records worker's time and allied pertinent information on a crew sheet. Timekeepers check crew sheets against clock cards and make periodic checks to see that supervision records time correctly.



*Departmental performance rating.*—No formal department rating plan presently exists. Some 6 weeks prior to the manpower utilization survey, industrial engineering commenced rating work realization in production departments. One of the above reports dated December 1, 1952 for departments 221 and 223 discloses 2.26 percent of work realization. The actual hours expended against the estimated hours required were utilized in formulating the above percentage of work realization. The information contained in this report is not forwarded to production supervision, whose figures were used in the above computation for future guidance.

To: Messrs. W. Malinowski, O. E. Fiyalko, S. Banks.

*Daily manpower and work progress, final assembly division—Departments Nos. 221 and 223*

Department	Station No.	Cost center	Earned standard hours	Actual hours expended	Percent realization
220	Administrative	0			
221	8	100	55.14	1,888	2.92
221	7	200	8.12	712	1.14
221	B and E, 110-200050	300			
221		400	8.99	912	.98
221		6	49.36	608	8.10
223	5	100	8.87	728	1.19
223	4	200	39.20	200	19.60
223	3	300			
223	2	400	10.59	2,920	.36
223	1	500			
Final assembly summary			179.96	7,968	2.26

*Individual performance rating.*—Absolutely no evidence of any plan, formal or informal, of individual performance rating.

*Labor productivity.*—Production has been adversely affected by small-lot orders, lack of tool control, out-of-station operations, and lack of work-measurement unit. Records are not available for lost man- or machine-hours due to breakdowns, waiting for material, or no work scheduled.

*Unavoidable suspension of work.*—Suspension of work caused by machine failure is of small consequence. Facilities are in excellent shape and require only normal conditioning. Design changes on C-119 and C-123 aircraft have occurred in no greater number than those normally experienced in aircraft production. Work stoppage has been caused by engineering changes necessitating rework of tooling; however, the greatest factor in this department is attributed to C-119 master template tooling as discussed under tooling in this report.

Inconsistent Air Force inspection has at various times contributed to production delays. To illustrate this point, C-119 inspection at Memphis required the contractor to replace several skins which structurally were perfect but visually their appearance was marred. It is pointed out that inconsistent inspection between Willow Run standards and Memphis standards caused Kaiser-Frazer Corp. workers to be removed from line production and sent to Memphis to replace aircraft skins not meeting Memphis quality standards.

*Plant equipment.*—Standard machine tools and related production equipment appear to be properly selected for the duties for which they have been selected to perform. Tools and facilities provided for benchwork appears to be adequate. All handling equipment such as cranes, hoists, dollies, and lift trucks appear to be well chosen and adequate.

Manual labor is not employed where mechanical aid should be used. In the transfer of semifinished work from place to place dollies, trucks, pallets, and cranes, using required handling devices are employed, the entire system being adequate thereby creating no congestion problems.

As far as can be determined no additional plant equipment either servable or non-servable is required in the aircraft division operation except as noted below. Additional spar mills and hydrotels would assist materially in performing their specific tasks and eliminate out-of-line flow of production items thereby increasing manpower utilization. Setup men are provided on all standard machine tools requiring this service as provided in the labor contracts.

*Subcontracting.*—Forty percent by weight of the C-119 aircraft is subcontracted. Rohr Aircraft located at Chula Vista, Calif., produces the power packs. Empenage control surfaces and wing flaps are produced by Gibson Refrigerator located at

## AIRCRAFT PROCUREMENT

Greenville, Mich. Struts are produced by Willys-Overland, of Toledo, Ohio. Whirlpool, of LaPorte, Ind., is producing the outer wings. Murray Body and Chase and others produce the balance of subcontracted items.

Corrosion of the outer panels caused by a chemical action resulting from a cleaning compound used by the vendor has been the only major holdup caused by subcontractors. Schedules on repair of these wings indicate that by mid-December this condition should be rectified. Although this condition has moved ships in the line out of station, idle time resulting therefrom is of no consideration.

While the percentage of subcontracting is reasonably balanced, the contractor is endeavoring to subcontract additional small items such as special components as might be produced on automatic screw machines, etc.

## OVERMANNING OF PLANT IN TERMS OF CURRENT NEEDS

Failure to apply properly an accurate unit of manpower measurement, has resulted in the overmanning of all departments in the aircraft area. Management has employed the total number of man-hours, by department, as set forth below in column so labeled; to do a task requiring the number of man-hours by department, also as set forth below in column so labeled.

Division or department	Estimated standard hours needed to produce Air Force schedule of 11 aircraft for December 1952	Estimated hours required to produce Air Force schedule of 11 aircraft for December 1952
200	24,200	145,600
210	82,500	255,040
220	23,100	197,820
231	1,254	28,800

Above hours are based upon a 20-workday month. The above table converted from hours to employees reads as follows:

Division or department	Number of employees needed to produce Air Force schedule of 11 aircraft for December 1952	Number of employees on payroll to produce Air Force schedule of 11 aircraft for December 1952
200	150	910
210	526	1,594
220	144	1,237
231	8	180

The above figures apply only to direct labor as so interpreted by Kaiser Manufacturing Corp. Standard hours needed per aircraft and employees on payroll are management figures over signature.

Management has allowed a 20-percent contingency factor in their estimated standard time. Applying another 50-percent contingency factor to management estimated time, the figures show that plantwide there are 2 employees for each 1 employee needed. Refer to departmental performance rating and excessive idle time.

Kaiser Manufacturing Corp. through the plant manager, explained to the survey team the manner in which they intend to remedy this situation.

## EXCESSIVE IDLE TIME

Excessive idle time is openly evident. Work pace (tempo) throughout the aircraft area is exceedingly slow. In all departments, employees singly or in groups, may be seen standing, reclining, talking. See excessive idle time spot checks that follow.

The Air Force resident auditor's records, Auditor General's Office, reflect the following practice instituted during the time of the manpower utilization survey

to keep idle production workers out of production areas. Entire crews, with their supervisors, have been sent to training school for subjects in which they have previously been certified proficient. The records further show that supervision morale is low as they do not have enough work to keep the employees under their jurisdiction gainfully employed. "Go count rivets" is a common order to an employee for whom there is no gainful assignment.

*Overmanning of work stations and excessive idle time*

*Causes and effects.*—(a) The overmanning of work stations is caused by a number of various reasons.

(b) The lack of flow of materials being at the correct location at the proper time is directly responsible to the lack of schedule changes not being balanced or set up in time to anticipate current needs.

(c) The average labor productivity, individual performance, or department ratings are not known thereby causing productive confusion.

(d) Production standards have been established on industry averages therefore these averages do not reflect the contractor's own experience causing lack of production control.

(e) No work simplification program is in effect, therefore, production as usual results.

(f) Manufacturing records are being improved however, many have not yet had sufficient time to prove their actual worth productionwise.

(g) Tooling has not been reworked to latest changes in many instances and employees come to work to perform their tasks on equipment not ready to produce. No apparent effort to utilize this idle time on other tasks is made.

(h) Absenteeism disrupts the flow of work by running as high as 10 percent, thereby holding up the flow of task performed in line production.

(i) Lack of utilization of a complete training program for supervisors and the absence of an orientation program for new workers at Kaiser-Frazer Corp. keeps the learning curve of employees at a maximum low.

(j) Production standard machine loadings by machines have not been made contributing to the contractor's inability to accurately gage the flow of machine production.

(k) There are several instances where the lack of qualified inspection holds up the flow of line production and employees sit at machines waiting for the completion of this phase of production.

(l) Incompetent setup men hold production equipment up for longer periods than should be required while operators wait to commence work.

(m) Time study has not established the required standards to produce the items thereby causing production management to estimate resulting in the unequal flow of production items.

(n) Proper screening of supervisory personnel is a factor in this category in that unless the employee possesses the qualifications himself to perform the task, he cannot in most instances impart this knowledge to those employees for which he is responsible.

*Conclusion.*—Recently the contractor's manufacturing personnel has realized that many of the factors covered herein have caused the conditions reflected and therefore, they have taken some corrective measures to rectify these conditions. However, much remains to be done. With continued effort and top management support, it is believed that in due time many of these corrective measures can show their effect in better contractor production performance.

*Following are specific spot checks, representing a cross-sectional sampling, of both day and night shifts, on a plantwide basis*

Location: Subassembly, H-43

Date: December 9, 1952

Time: 1615-1700

Type of observation: Excessive idle time spot check.

Supporting evidence and/or data: Crew of seven standing and reclining against bench and fixture. Talking and smoking. No work performed by anyone in group.

Summary comments: Mixed group, male and female. Total time of observation, 45 minutes. Group in same status at end of observation.

Location: H-58

Time: 0610-0650

Date: December 8, 1952

Type of observation: Excessive idle time spot check.

Supporting evidence and/or data: Counted 31 employees in this area. Made 8 counts to determine work tempo. Count of employees not engaged in productive work varied from 14 to 19 which shows only approximately 50 percent on the job. During observation three employees never moved. Actions varied from walking to just standing or sitting.

Summary comments: Total time of observation, 40 minutes.

Location: Center Wing Section, K-46

Time: 1735-1800

Date: December 8, 1952

Type of observation: Excessive idle time spot check.

Supporting evidence and/or data: Three groups, each with 2 employees, engaged in conversation, no production performance.

Summary comments: Employees still talking at end of observation. Total time of observation 25 minutes. Foreman asked to be of assistance. Observer identified himself and explained presence.

Location: H-55, C-123 Tool Crib J

Time: 1730-1758

Date: December 8, 1952

Type of observation: Excessive idle time spot check.

Supporting evidence and/or data: One girl stood at crib for the entire period. This party talked to everyone who came up for tool in groups of 1 to 4. She held them up for 3 to 5 minutes. Considered estimate that 3 hours of time was wasted. Job classification could not be obviously determined.

Summary comments: Total time of observation 28 minutes.

Location: Subassembly Station H-42

Time: 1832-1850

Date: December 8, 1952

Type of observation: Excessive idle time spot check.

Supporting evidence and/or data: Crew of two idle at fixture. No material in fixture for fabrication. Talked to third man who joined them.

Summary comments: Not working at end of observation. Female employee said something to male employee and nodded toward observer as checker left location. Total time of observation 18 minutes. This location checked previously.

Location: H-43.

Time: 1445-1505

Date: December 4, 1952.

Type of observation: Excessive idle time spot check.

Supporting evidence and/or data: During above observation 3 employees stood laughing and talking at 1452, 2 more joined them and 1 left. At the end of the observation period all 4 were still talking and laughing. Observer was close enough to hear when walking by, that all were discussing a wager of some type.

Summary Comments: Total time of observation 20 minutes.

Location: Subassembly H-49

Time 1805-1830

Date: December 8, 1952

Type of observation: Excessive idle time spot check.

Supporting evidence and/or data: Crew of nine employees around subassembly fixture. Three sitting on top of fixture talking, no work at all, 4 of crew working, 2 talking to others who come and go, and walking around fixture.

Summary comments: Total time of observation 25 minutes. Conditions the same at the end of the observation.

Location: H-42, Inspection Crib

Date: December 4, 1952 Time: 1420-1445  
Type of observation: Excessive idle time spot check, bench inspection.  
Supporting evidence and/or data: Employee sitting at bench had small piece laying before him. Stood outside the inclosure for above time during which employee did not move. Employee was looking around with no apparent industry.  
Summary comments: Total time of observation 25 minutes.

Location: Tool storage crib adjacent to aisle leading to Industrial Relations office

Date: December 5, 1952 Time: 1032-1050  
Type of observation: Excessive idle time spot check.  
Supporting evidence and/or data: Group of six employees gathered around desk inside caged area. Female employee seated on each end of desk. Talking and laughing, no one working.  
Summary comments: Total time of observation 18 minutes. No change in status when observer left post.

Location: Nacelles, H-43

Date: December 5, 1952. Time: 10:48-11:20  
Type of observation: Excessive idle time spot check, inspection.  
Supporting evidence and/or data: Out of approximately 25 employees working in area, observed all workers on 3 panel fixtures held up for 15 to 22 minutes (end of observation) on right and left sides. Each operation used 3 to 5 people; 9 to 15 people were held up while 1 K-F inspector made his inspection. Talked to foreman who said condition was unusual.  
Summary comments: Total time of observation 22 minutes.

Location: Crib Outside of R. Fiallo's Office

Date: December 5, 1952. Time: 10:10-10:30  
Type of observation: Excessive idle time spot check.  
Supporting evidence and/or data: Four female employees gather around card file, smoothing hair, talking, examining contents of purses, one employee occasionally scanning cards.  
Summary comments: Observed that three plant protection men are grouped at desk at security wall. It would seem that 1 man and at most 2 men would suffice for purpose of checking employees. Total time of observation 20 minutes.

Location: H-30 and H-29.

Date: December 5, 1952. Time: 10:28 to 10:45  
Type of observation: Excessive idle time spot check, bench.  
Supporting evidence and/or data: Five employees (one sitting on bench). No apparent industry during above time. After 8 minutes 2 left and 3 more joined conversation. One left, went over and sat down at idle machine at end of observation still talking making no effort to move.  
Summary comments: Total time of observation 17 minutes.

Location: Subassembly Station H-42—R. H. Fire Wall 110-5005-1-2 AJ

Date: December 5, 1952. Time: 11:03-11:30  
Type of observation: Excessive idle time spot check.  
Supporting evidence and/or data: Crew of two men at sectional assembly, no work at all. Crew of four inspectors talking, performing no work until they observed checker at 11:15. Group of 10 around second-named station, 4 working at an exceedingly slow pace.

Summary comments: Foreman asked if he could be of assistance. Explained purpose of check. Foreman explained about inspectors. Foreman explained method of obtaining new orders. Preparation for lunch hour started at 11:20 by everyone. Total time of observation 27 minutes.

Location: Main Aisle H-29, Opposite Templet Crib Near Power Brakes

Date: December 5, 1952.

Time: 10:10-10:28

Type of observation: Excessive idle time spot check.

Supporting evidence and/or data: During above period observed and counted 363 employees walking north and south, east and west. While it cannot be assumed that this travel was not necessary, it can be assumed that all these employees were not at their stations performing the task for which they were employed and the leisure tempo indicated no hurry. This sort of travel seems to be more or less predominant throughout the plant. Positive count some missed.

Summary comments: Total time of observation 18 minutes.

Location: Center Wing Section—K-46

Date: December 8, 1952.

Time: 17:35-18:00

Type of observation: Excessive idle time spot check.

Supporting evidence and/or data: group of 6 around subassembly fixture. Two on floor at end of platform talking, 2 on platform in reclining position, talking and 2 working.

Summary comments: Employees in same position at end of observation. Total time of observation 25 minutes. Foreman asked to be of help. Observer identified himself and explained presence.

Location: Between H-30 and H-29, Opposite Templet Crib Door, Power Brakes 1 and 2

Date: December 5, 1952.

Time: 10:10-10:28

Type of observation: Excessive idle time spot check.

Supporting evidence and/or data: Observed 5 to 10 employees who from close observation were engaged in idle gossip (apparent from facial expression, laughing, etc.). For above time there was no apparent call on their time. Stood with hand on hips or in pockets.

Summary comments: Total time of observation 18 minutes.

Location: Brake Press Nos. 1, 2, 3

Date: December 3, 1952.

Time: 14:25-14:40

Type of observation: Excessive idle time spot check.

Supporting evidence and/or data: One female operator working at an excessive slow pace, surrounded by 3 male employees and 1 female employee. Entire group engaged in conversation. Only 1 employee engaged in production.

Summary comments: Endless stream of employees walking back and forth, in aisles and through work area during observation. Total time of observation 15 minutes. No change in status at end of observation.

Location: Clock No. 1

Date: December 3, 1952.

Time: 15:20-15:30

Type of observation: Checking out at time clock.

Supporting evidence and/or data: The line contained a count of 78 people who were waiting from 5 minutes to 10 minutes with an estimated 25 to 30 more who obviously had left their stations 1 to 5 minutes ahead of time.

Summary comments: Total time of observation 10 minutes.

Location: Incoming Tool and Inspection Crib at Aisle Across From H-40  
Date: December 3, 1952. Time: 14:45-15:00  
Type of observation: Excessive idle time spot check.  
Supporting evidence and/or data: Two groups of 3 and 1 group totaling 4 to 9 persons at various times, engaged in conversations. No work performed at any time.  
Summary comments: Total time of observation 15 minutes. Groups still engaged in conversation when observer left.

Location: K-41, Main between Center aisle and East aisle at crib on West Side  
Date: November 28, 1952. Time: 10:25-10:45  
Type of observation: Excessive idle time spot check.  
Supporting evidence and/or data: Observed an employee talking to a lady inside crib. Discussion apparently personal (laughing etc.). Four other employees came up wanting data or information—1 came back later. 1 joined conversation for 10 minutes. During interim of observation observed other employees in groups of 2 to 11 walking and holding conversations which from actions appeared to be of a personal nature.  
Summary comments: Total time of observation 20 minutes.

Location: H-43, Subassembly  
Date: December 9, 1952. Time: 20:42-21:00  
Type of observation: Excessive idle time spot check.  
Supporting evidence and/or data: Group of 7 around subassembly fixture. Four doing no work, 3 occasionally working at slow pace.  
Summary comments: Checked same group earlier in the evening at 16:15-17:00. No change in status at end of observation. Total time of observation 18 minutes.

Location: H-47, Subassembly  
Date: December 9, 1952. Time: 20:42-21:00  
Type of observation: Excessive idle time spot check.  
Supporting evidence and/or data: Three employees leaning on workbench. No work being performed. 1 employee standing between rivet storage racks.  
Summary comments: This observation made in conjunction with area H-43 check. Total time of observation 18 minutes.

Location: Tool control 282  
Date: December 9, 1952. Time: 20:30-20:40  
Type of observation: Excessive idle time spot check.  
Supporting evidence and/or data: Four employees in a group talking. No work being performed.  
Summary comments: Group still talking at conclusion of observation. Total time of observation 10 minutes.

#### INDUSTRIAL RELATIONS DIVISION

This extremely important activity is directed by a vice-president, two assistants, seven section chiefs, and 490 employees. The scope of the services provided is broad and the lines of authority are clearly established in the following fields: Labor Relations, Personnel Services, Training, Plant Protection, Wage and Salary Administration, Feeding Operations.

Related activities wherever Medical Services and Plant Safety are provided are also under this division. The only significant deviation from normal practice in the several departments arises from the decentralization of personnel records at operating departmental levels where the responsibility is delegated for the maintenance of seniority records, and absentee and overtime accountability.

The ratio of those engaged strictly in labor and personnel relations is one for each 136 employees. This calculation, because of the allocability aspect, is determined on a plantwide basis and comes within the normal range for these functions within the aircraft industry.

*Unions involved*

Union(s) involved	Affiliation	Membership	
		Number	Percent
1. UAW, Local No. 142.....	CIO.....	19,461	87.0
2. Amalgamated Plant Guards of America, Local No. 114.....	United Plant Guard Workers of America.....	154	1.3
3. United Catering, Restaurant, Bar & Hotel Workers.....	CIO.....	81	.7
4. Foreman's Association of America, Chapter.....	Foreman's Association of America.....	1,192	11.0
Total.....		10,888	100.0

Union officials	Affiliation	Title
1. Harley Neidoffer.....	UAW, Local No. 142.....	President.
John Burton.....	do.....	Chairman, Bargaining Committee.
Tommy Thompson.....	do.....	Secretary.
Tom Stanley.....	do.....	Bargaining committeeman.
J. F. Metsinger.....	do.....	Do.
Enoch Arnold.....	do.....	Do.
2. Stanley Szczesny.....	Amalgamated Plant Guards of America, Local No. 114.....	President.
3. Marlon Oswalt.....	United Catering, Restaurant, Bar & Hotel Workers, Local No. 1084.....	Chief steward.
4. Kenneth Phinlister.....	Foreman's Association of America, Chapter No. 20.....	President.

<sup>1</sup> Direct aircraft charge, 5,745; allocable, 3,716; total, 9,461.

*Labor relations*

There are two significant clauses in the Kaiser-Frazer agreement which add considerably to management's problems, the first relating to "plantwide" seniority and the second provides for a fixed quota of shop stewards whose duties are solely with union matters even though they are paid their respective classified rates of pay as if they were engaged in productive effort for the company.

The adverse effects of plantwide seniority and the implicit disruption of repeated bumping is obvious. Management is placed in a particularly difficult position in staffing in an orderly manner. This disadvantage is found nowhere else in the airframe industry. The closest related example of a motor company with a UAW contract, engaged in airframe production is that of Buick, Olds, Pontiac where the supplemental agreement regarding seniority has been realistically developed as follows:

The contractor (BOP) agreed to recognize auto workers seniority rights in terms of transfers to the new aircraft program on the following basis:

Transfers would be scheduled at the company's discretion confined to occupational groupings (job-families), and BOP agreed to recognize seniority to the limited extent of providing employment in aircraft production, for not to exceed 25 percent of the total number employed, by the end of 12 months from the commencement of operations. This basis of orderly staffing gives management the latitude that experience has dictated is necessary to organize and operate dual production lines on an efficient basis.

While there has been no major work stoppage in the company's aircraft operations during the 2-year period since its inception, the following facts are clear and significant. The bargaining agent (UAW) has progressively gained such influence in the management of the company's affairs that in spite of the costly maintenance of a large force of nonworking union job stewards whose sole function is to represent membership in the resolution of their grievances, the continuing volume of such localized disputes indicates that there is chronic restlessness which undermines both morale and productivity.



It is a well-established fact that there is an inadequate number of competent skilled workers available to meet the company's responsibility for stepping up both production and quality control standards, and for training and supervision of the rank and file workers who are new to aircraft production.

From a strictly labor utilization standpoint, the survey team finds itself confronted with the unique and paradoxical situation whereon the one hand there is an acute shortage of skilled workers, particularly with related experience, and on the other hand, we observe that there are 101 of such critically needed skilled artisans who are on the payroll at their respective skilled rates, and yet have no direct production duties whatever. Their sole function is to represent their members in all matters where there is a conflict between the worker and his supervisor through the means of grievance procedures established under the terms of the contract.

The volume of grievances as set forth in the table which follows will convey some idea of the impact upon the labor relations department which is staffed by 17 workers who have the responsibility of representing management in all "third step" appeals. The actual backlog of cases pending (148) is not considered unwieldy in the light of the total volume for the year 1952. The estimated average number of second step grievances approximates 20 per week, from an estimated 35 unresolved and originating in the first step.

A representative sampling of the major causes of discord leading to grievance cases is as follows:

- (1) A. w. o. l. involving loss of seniority.
- (2) Overtime considerations.
- (3) Alleged violation of job classifications, viz, working out of classifications.

1950.....	1, 252
1951: Total number of grievances presented in third step.....	635
1952:	
Total number of grievances presented in third step:	
Automotive.....	178
Aircraft.....	238
Allocable.....	243
Total.....	659
Total number of 1952 grievances settled.....	511
Total number of 1952 grievances pending.....	148
Total number of grievances presented in the second step:	
Automotive.....	82
Aircraft.....	196
Allocable.....	216
Total.....	494
Total number of grievances presented in the 1st step: <sup>1</sup>	
Automotive.....	109
Aircraft.....	239
Allocable.....	243
Total.....	591

<sup>1</sup> This figure based on grievance reports. The departments do not report all grievances presented in the 1st step.

This "subsidization of the steward system" is extremely costly and created a financial burden which in 1951 cost \$517,395 or an average of \$6,531.50 per steward representing regular time and extensive overtime for 95 full-time stewards. It is the resident auditor's estimate that the 1952 cost for 101 such representatives will (due to upgrades and increased overtime) amount to \$620,500. These costs based upon the practice of allocability are borne in the ratio of 70 to 30 percent with the higher figure or \$362,176 charged to the Air Forte account.

There are 95 full-time, nonworking union representatives paid by the company. This is the minimum provided for by the union contract:

Job stewards.....	80
Regional stewards.....	7
Shift chairmen.....	8
Bargaining committee.....	5
Total.....	95

The actual earnings of the 95 union representatives paid by the company in 1951 was \$517,395 (the total paid by the company to all union representatives was \$607,572, but \$90,177 represented money paid to regular employees).

An analysis of the annual gross earnings of all full-time union representatives for the year 1951 disclosed the following:

One earned more than \$17,000.

One earned from \$10,000 to \$17,000.

Five earned from \$8,000 to \$10,000.

Nineteen earned from \$6,000 to \$8,000.

Any attempt to analyze manpower problems which failed to highlight excessive "feather bedding" practices which adversely affect the morale of workers would fail in its purpose since these are numerous cases of exorbitant incomes ranging from the \$6,500 average to an extreme of \$16,935. Gross earnings are paid to the job steward whose badge number is 314 and whose complete record of earnings is detailed in the attached copy of the Air Force Resident Auditor's report. Since the overtime clause in the contract (regarding stewards) stipulates that if one or more workers is so engaged that the steward of that department be advised 2 hours in advance of the close of the shift so that he will also be present and paid accordingly.<sup>1</sup> If the verbal notification is not received, the steward will be paid even though absent on the same basis as if he were present.

Since these practices are common knowledge throughout the plant, it is (after obtaining facts such as these) not difficult to understand the adverse influence upon the ordinary worker whose productivity rate falls far short of an acceptable standard.

*Employee, badge No. 314, job steward, engineering department*

Second shift.

Rate: \$3.7288 per hour.

Rings in at clock station No. 23.

Time approved by: George Henry, staff assistant, engineering.

	Actual hours worked	Base hours paid	Total hours paid	Total gross pay
Ending Dec. 2, 1951, pay week No. 49:				
Monday <sup>1</sup>	8	12.5	14.75	\$55.00
Tuesday <sup>1</sup>	8	12.5	14.75	55.00
Wednesday <sup>1</sup>	8	12.5	14.75	55.00
Thursday <sup>1</sup>	8	12.5	14.75	55.00
Friday <sup>1</sup>	8	12.5	14.75	55.00
Saturday <sup>1</sup>		10.0	15.00	55.93
Sunday <sup>1</sup>		10.3	20.60	78.87
Total	40	82.8	109.35	409.80
Cost-of-living allowance, 20 cents per hour				21.87
Total gross pay				431.67
Ending Dec. 9, 1951, pay week No. 50:				
Monday <sup>1</sup>	8	14.2	17.3	64.51
Tuesday <sup>1</sup>	8	14.2	17.3	64.51
Wednesday <sup>1</sup>	8	15.2	19.8	73.83
Thursday <sup>1</sup>	8	15.2	19.8	73.83
Friday <sup>1</sup>	8	15.2	19.8	73.83
Saturday <sup>1</sup>	8	15.2	19.8	73.83
Sunday <sup>1</sup>				
Total	48	89.2	113.8	424.34
Cost-of-living allowance, 20 cents per hour				22.76
Total gross pay				447.10
Total gross earnings Dec. 25, 1950, through Dec. 9, 1951				16,935.19

<sup>1</sup> Not notified.

One or more day-shift employees could be working overtime, but if the job steward could not be notified, then he would be paid even though not present.

<sup>1</sup> Auditor estimates 1952 gross to approach \$20,000.

*Comparable salaries of corporate employees*

Vice president, public relations.....	\$17,007.02
Director of personnel administration.....	10,058.81
Director of taxes and insurance.....	10,183.21
Director of treasury division.....	11,823.26
Chief tool and die engineer.....	12,782.52
Assistant controller.....	16,281.73
Chief accountant.....	11,823.26

*Kaiser-Frazer Corp.—Salaries of union representatives billed to aircraft, January to October 1952*

Month	Department 352 allocable amount	Allocated to contracts	Allocated to other aircraft activity	Total aircraft
January.....	\$67,030.19	\$41,609.69	\$309.75	\$41,919.34
February.....	53,155.47	33,139.72		33,139.72
March.....	49,593.37	29,593.06	416.19	30,009.25
April.....	53,173.01	32,633.37	432.83	32,966.20
May.....	54,177.29	34,397.06	351.23	34,748.28
June.....	57,512.57	36,880.40	117.96	36,998.36
July.....	62,664.19	40,714.93	139.24	40,854.17
August.....	51,956.01	34,695.69	153.69	34,749.38
September.....	65,729.20	43,309.70	383.26	43,692.96
October.....	69,206.06	46,355.89	357.72	46,713.61
Total.....	584,197.36	373,129.40	2,661.87	\$75,791.27

*Union classifications*

	Badge number	Per hour base rate	Per 8-hour day	Classification
Bargaining committee:				
J. Burton.....	29843	\$1.71	\$13.68	Repair.
G. Thompson.....	10269	2.06	16.48	Electrician-maintenance.
J. Molsinger.....	10767	2.16	17.28	Leader.
E. Arnold.....	11285	1.96	15.68	Repair.
T. Stanley.....	10656	2.44	21.12	Gage trouble man (Gr. 9).
Regional stewards: O. Douglas (1st shift).	21113	2.11	16.88	Layout development and sheet metal.
Regional stewards (2d shift):				
A. DeMink.....	10446	1.96	15.68	Maint. Main. Brsh. Sp.
D. Slee.....	15740	1.96	15.68	Repair machining.
J. Wisniewski.....	11311	1.89	15.12	Utility final assembly.
J. Russell.....	19764	1.99	15.92	Inspector final.
H. Wilson.....	3992	2.80	22.40	Engineer service (grade 9).
Regional stewards (3d shift):				
R. Clark.....	11593	2.26	18.08	Die tryout man.
H. Noel.....	14182	2.06	16.48	Followup plan miscellaneous.
Shift chairmen:				
L. Moore (1st shift).....	13477	1.06	15.68	Utility.
R. Watson (2d shift).....	10234	1.96	15.68	Fabrication, aircraft parts.
E. Anglin (3d shift).....	20269	1.99	15.92	Inspector final.
Job stewards (1st shift):				
M. Hodges.....	11810	2.01	16.08	Pipefitter.
C. Wilson.....	18250	1.89	15.12	Utility final assembly.
B. Elsworth.....	10837	2.06	16.48	Electrician maintenance.
C. Marshall.....	16797	1.66	13.28	Assembly bench hand helper.
E. Channels.....	14800	1.89	15.12	Utility final assembly.
A. Kubas.....	20662	1.71	13.68	Checker receiving shipping.
Job stewards (2d shift):				
R. Meyers.....	18230	2.36	18.88	Tool gage inspector.
J. Washburn.....	17954	2.01	16.08	Rigger.
A. Getto.....	11651	2.11	16.88	Welder maintenance plant pipe.
V. Roberts.....	10722	2.36	18.88	Leader.
F. Brant.....	728	2.31	18.48	Experimental mechanical test laboratory.
L. Bond.....	10187	2.06	16.48	Repair general electrician.
R. Kigger.....	13567	1.91	15.28	Tool control man air.
H. Richardson.....	12316	2.06	16.48	Mason.
C. Mullin.....	29807	1.66	13.28	Order service part.
B. Storemski.....	36251	1.86	14.88	Repair.
A. Koszyk.....	17939	1.71	13.68	Cleaner, machine.
E. Golema.....	15604	1.86	14.88	Utility.

## Union classifications—Continued

	Badge number	Per hour base rate	Per 8-hour day	Classification
<b>Job stewards (2d shift)—Con.</b>				
S. Marchlins.....	10601	\$1.91	\$15.28	Utility.
J. Kohnoscher.....	18311	1.86	14.88	Do.
R. Stough.....	14929	1.91	15.28	Do.
M. Stasky.....	12107	1.91	15.28	Do.
J. Dunn.....	13620	1.96	15.68	Repair.
C. Moyer.....	15810	1.86	14.88	Material check inventory control.
D. Flynn.....	11539	1.86	14.88	Do.
W. Bray.....	16821	1.66	13.28	Driver power truck.
J. West.....	16318	1.86	14.88	Material check inventory control.
J. Skelton.....	12064	1.86	14.88	Do.
R. Lewis.....	12810	1.76	14.08	Utility.
J. Lovasz.....	23791	1.81	14.48	Relief.
J. Blackburn.....	38983	1.71	13.68	Repair.
J. Tupacz.....	11748	1.86	14.88	Relief.
J. Oginski.....	16846	1.86	14.88	Utility.
K. Anderson.....	20335	1.76	14.08	Relief.
B. Hawthorne.....	16481	1.89	15.12	Utility final assembly.
V. Sweet.....	13745	1.81	14.48	Utility.
P. Pace.....	19555	1.86	14.88	Repair.
E. Potter.....	28640	1.89	15.12	Utility final assembly.
H. Scott.....	29783	1.81	14.48	Relief.
W. Anderson.....	14905	1.86	14.88	Do.
D. MacDermott.....	18856	1.91	15.28	Utility.
A. Smolka.....	11060	1.76	14.08	Leader.
J. Farley.....	12871	1.86	14.88	Utility.
P. Cassidy.....	12435	1.96	15.68	Fabricated aircraft parts.
V. Flint.....	12515	1.86	14.88	Repair.
A. George.....	13389	1.86	14.88	Relief repair.
C. Blackburn.....	20080	1.89	15.12	Utility sub and major assembly.
J. Harrigan.....	12759	1.96	15.68	Repair.
J. Host.....	1276	1.99	15.92	Inspector final.
H. Younger.....	26405	1.89	15.12	Utility sub and major assembly.
F. Loomis.....	4648	2.32	18.56	Accounting (grade 7).
J. Markarian.....	3330	1.87	14.96	Timekeeper (grade 5).
C. Bole.....	5539	2.56	20.48	Technician service parts (grade 8).
G. Nelson.....	314	3.76	30.08	Designer (grade 12).
O. Dishong.....	10902	2.64	21.12	Gage trouble man (grade 9).
R. Cadry.....	2873	2.32	18.56	Followup (grade 7).
<b>Job stewards, (3d shift)</b>				
W. Harrington.....	11779	1.71	13.68	Cleaner machine over.
A. Michevicius.....	18397	1.71	13.68	Cleaner saver.
R. Sharrock.....	33057	2.51	20.08	Templet inspector air.
R. Rodonbaugh.....	23808	2.01	16.08	Rigger.
D. Stearns.....	1176	2.19	17.52	Switchboard S. operator.
R. Juliano.....	15534	1.77	14.16	First-aid attendant.
R. Daniels.....	20909	2.11	16.88	Machine repair machining.
J. Billingsley.....	17487	1.81	14.48	Dic setter.
C. James.....	35096	1.91	15.28	Utility.
D. Greca.....	33904	1.89	15.12	Utility sub and major assembly.
A. Johnson.....	25923	1.76	14.08	Leader.
E. Wertz.....	27679	1.86	14.88	Material check inventory control.
J. Willis.....	26363	1.86	14.88	Do.
C. Morrow.....	17982	1.60	13.28	Driver power truck.
L. Plank.....	24322	1.96	15.68	Repair.
R. Williams.....	12138	1.81	14.48	Repair trim general.
J. Marhofer.....	20794	1.81	14.48	Cutter trim leather.
B. Davidson.....	14642	1.89	15.12	Utility final assembly.
R. Cheek.....	15595	1.89	15.12	Do.
J. Newport.....	15934	1.89	15.12	Do.
E. Brown.....	30062	1.71	13.68	Repair.
L. Hagen.....	13172	1.91	15.28	Utility.
C. Bradley.....	19081	1.86	14.88	Do.
H. Glenn.....	24561	1.81	14.48	Relief.
M. Serra.....	12633	1.86	14.88	Utility.
R. Helton.....	25464	1.80	14.88	Do.
R. Franks.....	11511	1.99	15.92	Inspector final.
J. Quick.....	25725	2.18	17.44	Followup man (grade 7).
B. Dunkelburger.....	16624	2.80	22.40	Tool trouble man (grade 9).
Foreman's association of America Chapter No. 20: B Wallis.	12015	3.69	29.50	General foreman.

NOTE.—All of the rates are base rates and do not include the cost-of-living allowance of 25 cents per hour—  
and shift premium of 5 percent for the afternoon shift and 7½ percent for the midnight shift.

Does not include overtime.

Since the cost-of-living formula adjustment in current contract applies—add \$2 to individual daily 8-hour earnings. Allocable portion charged to AF account on daily basis, \$1,226.58.

INTER-OFFICE CORRESPONDENCE

DECEMBER 10, 1952.

To: Mr. S. F. Patyrak  
From: J. F. Cocks, Jr., Assistant Controller  
Subject: Allocation percentages used in distributing cost of union representation for October 1952

In accordance with your telephone request to Mr. J. F. Greenwald, we wish to advise that the cost of department 352, union representatives, for the month of October 1952, was allocated in accordance with the following percentages:

	Percent
Automotive (01).....	32.50
Defense overhead pool (98).....	66.98
Automotive reinstallation.....	.14
Chase Aircraft Co., Inc.....	.38
Total.....	100.00

The costs accumulated against department 352 include the bargaining committee, as well as job stewards, regional stewards, etc., throughout the various plant departments. The percentages quoted above are effective for the month of October only and will vary each month since the allocation is made on direct charged man-hours.

J. F. Cocks, Jr.

*The hiring program*

The director of industrial relations is responsible for the policies and programs, under which the personnel director and his staff perform the usual functions of an employment servicing unit, on a joint basis for both automotive and the aircraft operations on a separate functional but administratively allocable basis.

Personnel practices, such as recruitment and assignment, are because of the union contract seniority clause, operating on a complex staffing pattern which is briefly as follows: Except for a few typically difficult aircraft skills, the only direct hiring of new workers for aircraft operations occurs when the size of the demand, exceeds the supply of seniority<sup>2</sup> auto workers, who have applied for transfer to aircraft. All vacancies must be posted, as a means of acquainting eligibles with opportunities available for transfers to aircraft.

While the physical facilities are largely separate so far as production is concerned, it was determined as both necessary and administratively feasible in a dual purpose plant of this character, to operate under a plan which would provide for the flexible interchange of workers between automotive and aircraft. Those workers, largely engaged in providing services, are referred to as "allocable" constitute a large segment of the total engaged in aircraft. Those employed on either a full time or "divided basis," in this category amount to 34 percent of the 13,039 employed for the pay period ending November 30, 1952.

This established practice of widespread integration of manpower resources, poses a very real problem, in efficient administration and at times, obscures the very facts upon which the survey team must depend to properly evaluate manpower utilization.

*Labor requirements.*—The company has been able to obtain enough production workers to meet production schedules.

Since the inception of the Kaiser-Frazer Corp. program and the demand for production direct workers, there has been a shortage of experienced aircraft workers such as hand formers, stretch press, routers, press brakes, mill operators, subassembly and final-assembly workers.

Additional employees needed now (Nov. 24, 1952).....	10
Additional employees needed 1 month from now.....	10
Additional employees needed 3 months from now.....	1,400
Additional employees needed 6 months from now.....	0

<sup>1</sup> Denotes no net increase in manpower, however, critical classification manpower shortages exists, i. e. : Tooling, engineers, skilled clerical, etc.

"The forecast that an additional 1,400 people would be required by February 1953 (3 months from date of forecast) is based on the current status of the C-119

<sup>2</sup> Seniority defined as "any worker with a minimum of 90 days Kaiser-Frazer service."

program which is currently in production and the anticipated needs of the C-123 project which is being put into production.

"In the above forecast, consideration is given to the slippage which has occurred in the contractor's performance to the C-119 schedule. This adjustment defers the peak requirement for direct manpower on this project for several months, and overlaps the manpower buildup on the C-123.

"A total of 4,300 direct workers will be required on the C-119 program at peak. Of this total 3,600 are currently on the roll, assigned to this project. The difference of 700 employees must be hired by March to meet C-119 demands.

"Direct labor requirements on the C-123 program are at present increasing. This expansion occurs concurrently with the C-119 project and amounts to an increase of 700 people between the present and the C-119 peak. After the C-119 peak occurs and starts downward, these people will be reassigned to the C-123 to meet the expansion of production on that airplane."

*Unfilled labor requisitions now in company employment office—November 28, 1952*

Department having the vacancy	Job title	Wage rate of job	Number male	Number female	Total
211	Welder arc certified.....	\$1.76	1	—	1
	Welder gas certified.....	1.76	3	—	3
213	Welder arc certified.....	1.76	4	—	4
231	Licensed flight mechanic.....	2.06	22	—	22
	Licensed electronic mechanic.....	2.06	3	—	3
281	Addressograph operator.....	1.3473	1	—	1
282	Tool control.....	1.81	14	—	14
288	Time study, grade 6.....	1.8740	3	—	3
	Industrial engineer, grade 10.....	2.6103	1	—	1
291	Secretary, grade 4.....	1.5723	—	1	1
311	Draftsman, grade 6.....	1.8740	2	—	2
	Engineer, grade 7.....	2.0618	1	1	2
	Engineer, grade 11.....	2.8480	3	—	3
	Followup sample tool.....	2.0618	9	—	9
	Designer, grade 12.....	3.0855	1	—	1
	Detailer tool and die design grade 7.....	2.0618	1	—	1
	Designer tool and die, grade 8.....	2.2243	7	—	7
	Designer tool and die, grade 9.....	2.4618	7	—	7
	Engineer, die, grade 10.....	2.6103	2	—	2
	Engineer, tool, grade 8.....	2.2243	5	—	5
	Engineer, tool, grade 10.....	2.6103	19	—	19
	Engineer, tool, grade 11.....	2.8480	1	—	1
312	Tool mill operator.....	1.80	5	—	5
	Tool maker.....	1.90	43	—	43
	Boring mill, Lucas.....	2.16	1	—	1
	Turret lathe operator.....	1.86	1	—	1
	Tool shaper operator.....	1.91	2	—	2
	Tool room grinder.....	1.96	1	—	1
313	Heat and vent operator.....	1.795	1	—	1
314	Crib attendant.....	1.61	17	—	17
331	Inspector receiving.....	1.66	5	—	5
	Inspector, layout.....	2.06	1	—	1
	Engineer quality Mat. Rev. Air, grade 10.....	2.81	2	—	2
	Station quality control, grade 9.....	2.46	1	—	1
341	Engineer, salvage, grade 7.....	2.06	1	—	1
	Engineer, salvage, grade 9.....	2.46	1	—	1
	Office and clerical, grade 2.....	1.35	—	1	1
	Production control man, grade 7.....	2.06	1	—	1
	Analyst index schedule, grade 7.....	2.06	6	—	6
	Specialty man production, grade 7.....	2.00	3	—	3
	Followup plan, miscellaneous grade 7.....	2.06	1	—	1
355	Illustrator training aids, grade 6.....	1.87	1	—	1
	Coord. merit rate/test.....	2.61	1	—	1
	Coordinating merit rate/test assistant.....	1.87	1	—	1
401	Detailer, grade 5.....	1.70	1	—	1
	Production illustrator, grade 10.....	2.61	1	—	1
	Analyst stress, grade 7.....	2.06	1	—	1
411	Engineer mat rev. air, grade 9.....	2.46	3	—	3
	Analyst stress, grade 7.....	2.06	1	—	1
	Engineer weights, air, grade 9.....	2.46	1	—	1
414	Office and clerical, grade 2.....	1.34	—	1	1
416	Chemist, grade 9.....	2.46	2	—	2
	Metallurgist, grade 7.....	2.06	1	—	1
	Metallurgist, grade 9.....	2.46	1	—	1
	Radiographer, grade 7.....	2.06	1	—	1
417	Blueprint machine operator, grade 1.....	1.23	—	1	1
	Office and clerical, grade 2.....	1.35	—	1	1
	Duplicating machine operator, grade 2.....	1.35	—	4	4

Unfilled labor requisitions now in company employment office—November 28, 1952—Continued

Department having the vacancy	Job title	Wage rate of job	Number male	Number female	Total
512	Office and clerical, grade 2.....	\$1.35	-----	1	1
	Timekeeper, grade 5.....	1.70	3	3	6
533	Bookkeeping machine operator, grade 2.....	1.34	-----	1	1
	Typist, grade 2.....	1.34	-----	1	1
543	Tabulating operator, grade 2.....	1.34	3	-----	3
	Clerk tab control, grade 3.....	1.46	-----	2	2
	Keypunch operator, grade 1.....	1.23	-----	2	2
733	Sparos technician, grade 9.....	2.46	1	-----	1
	Total.....		226	20	246

NOTE.—A 26-cent cost-of-living adjustment should be added to above rates.

New employees can be absorbed as rapidly as they can be obtained.

*Sources of new employees.*—With the exception of an occasional attempt at "positive recruitment" of experienced skilled aircraft workers in distant areas where extension airframe production is under way, the company has been obliged to depend upon the manpower resources of Greater Detroit for its labor requirements. Past efforts to attract increasing numbers of workers with aircraft experience has not been successful for reasons of inadequate housing adjacent to plant, thus requiring difficult commuting, uncertainty as to Kaiser-Frazer's future position in industry, as it relates to continuing employment and personal security, contrasted to strong competition in the tight Detroit labor market area by Ford, Chrysler, General Motors, and countless other powerful and long-established industrial leaders, for a dwindling number of additional workers.

In the light of these conditions, the company has during the past 90 days followed a policy of hiring women workers with previous aircraft or related experience, in preference to the substandard supply of male production workers. During the past summer a large number of undergraduate students were employed on a temporary basis.

As a further evidence of the heavy dependence upon commuters as the source of labor supply, as indicated by a recent company survey, only 17.6 percent of those employed reside in Ypsilanti township. It is significant to note that accessions at times during 1952 were averaging 2,000 a month. The large flow of applicants necessary under these circumstances, was accomplished by extensive advertising through all promotional media, that is, radio, newspapers, and television.

As indicated specifically elsewhere in this report, there is a close working relationship between the company and the Michigan State Employment Service, except for uncoordinated positive recruitment in distant areas, that is, Wichita case, as reported in Michigan State Employment Service section, this disruptive program has been terminated by request of the AMC team.

*Michigan State Employment Service.*—An unusually close working relationship exists between the company and the MSES. In the past the employment service has played a more important role as a referral source, where large-scale hiring prevailed, whereas with current recruitment greatly curtailed (skilled only), the bulk of new hires is through the company's personnel department.

The recent incident of disruptive recruiting for skilled aircraft workers conducted early in November by Kaiser-Frazer in the Wichita area has been remedied by the withdrawal of the positive recruiter, immediately following our protest of the method employed.

The immediate recruitment of 40 supervisors, with current experience in aircraft construction has been ordered by the newly assigned special AMC representative and arrangements for interregional recruitment are underway with the Ypsilanti office of the Michigan State Employment Service, originating the request for Defense Manpower Administration directional guidance.

A comparison of current recorded demands between the Kaiser-Frazer Employment Division and the MSES shows close consistency as do the records of past referral and hiring practices. While the percentage rate of penetration is not high, the critically tight nature of manpower supply available in the immediate area served by this office, is fully understandable.

*Cooperation with employment services*

The director of industrial relations and the personnel director have reported a favorable relationship during the entire period of time, (22 months) that the aircraft program has been underway. All Michigan State employment service offices in the entire metropolitan Detroit area have participated.

The ratio of workers referred to workers hired is unusually high, (see attached chart) and may be open to question. However, the present emphasis is on quality, and the benefit of the doubt, rests more on the premise that improved confirmation procedure can be readily employed by the MSES with a curtailed demand for volume referrals.

	Number referred by State employment service	Number reporting to company from State employment service	Number hired	Number rejected or refused job offered
August 1952:				
Male.....	51	51	37	14
Female.....	13	13	8	5
Total <sup>1</sup> .....	64	64	45	19
September 1952:				
Male.....	40	40	45	2
Female.....	105	105	27	78
Total.....	145	145	72	80
October 1952:				
Male.....	43	42	34	8
Female.....	23	23	19	5
Total.....	66	65	53	13

<sup>1</sup> Number hired exceeds number referred on account of previous months referrals who were later hired.

The following listing of openings placed with the Ypsilanti office of the Michigan State Employment Service on the dates shown, has been revalidated by the survey team on December 3, 1952. No significant change in the list of skills (national criticals) involved in the interim period of 11 weeks, with the exception of plant engineers which requirement was reduced from 6 to 2. This situation is indicative of the tightness of the Detroit labor market area.

Job title	No.	Date placed
Toolmaker.....	34	Sept. 17, 1952
Diemaker.....	1	Do.
Draftsman.....	2	Do.
Engineer—plant.....	2	Do.
Tool and Die Design.....	18	Do.
Do.....	1	Do.
Tool engineer.....	20	Do.
Stenographer.....	4	Do.
Chemist.....	2	Do.
Metallurgist.....	3	Do.
Flight mechanic—licensed.....	18	Do.
Industrial engineer.....	2	Sept. 25, 1952
Timestudy man.....	2	Do.
Foreman and supervisors.....	40	Oct. 15, 1952

*Interviews and tests*

Following a closely established public relations policy, all applicants are interviewed with the same courtesy that the company sales department uses in its dealings with the prospective customers for sales promotion.

While the answers to direct questions relating to the use of various preemployment tests are all in the affirmative, it was quite evident upon further investigation that trade, intelligence and aptitude tests are only used in a very limited way, i. e., stenographic performance tests involving shorthand and typing.

*Investigation of applicants.*—The usual course is through the facilities of retail credit (Dun & Bradstreet, etc.) who investigate previous employment record, character, credit, etc. From a security standpoint there is also the customary requirement of citizenship and where an alien status is involved special investigation procedure is employed in line with Defense Department regulations.



*Time required to process new applications.*—Based upon detailed discussion of this subject with the company personnel director, the element of time required to process a new worker amounts to about 1 hour the required pre-employment physical and other paper work.

*The training program*

While the present aircraft contract has been in operation for nearly 2 years, and notwithstanding the fact that experienced aircraft men have been and still are in extremely short supply, this company did not have a recognizable or formal training program until late April when, through the issuance of Aircraft Procedure No. 67 (dated April 24), a start was made in this direction.

The attached schedule will show the various classifications and the number of hours prescribed for the course of instruction by what is known as vestibule training. The facilities for conducting these courses are not adequate. There is an insufficient amount of space assigned even for merely conducting lecture courses, which in most cases is not a practical way in the absence of a workshop where actual operation of the machines may be demonstrated and subassemblies used to practice upon. The development of a realistic training program has been retarded by what the survey team regards as a lack of appreciation of both the need and the practical value of training programs which are soundly established elsewhere in the airframe industry.

Industry studies have long since established the fact that training can only be accomplished through an established method. To state without particularizing that training is being done on the job is frequently a convenient term which means little when 80 percent of all new hires are without previous related experience.

The training department in Kaiser-Frazer concurs in the above observation and has succeeded in recent months in gaining headway with a supervisory training program which is otherwise known as the basic management (40 hour) course. This course, which has now been given to one-half of the company's supervisors, is soon to be made mandatory for all such employees. There is also the weekly 1 hour discussion period of current problems. To implement this program, the department has compiled a supervisor's manual which is both a guide to the course and a supervisor's handbook which is issued to each trainee who completes the course as a continuing source book. Two well-developed handbooks have been prepared by the training department and are in use as training aids in riveting and the second is entitled "Use of Quality Control Charts."

The attached schedule represents the detailed accounting of the training department for its activities during the period of April to December 1952.

*Induction program (orientation).*—Apart from the performance testing of stenographic and clerical applicants, there are no standardized employment techniques of this character used by the personnel department for final selections. The methods employed are production line in type being simple and direct which includes a perfunctory physical examination. Facilities have been streamlined to handle the mass inductions which have on several occasions approached 2,000 new hires each month.

The company does not have an orientation program and in its place has depended upon the simple expedient—turning the new worker over to the foreman for informal familiarization with his duties, company rules, security program, and overall policies.

*Upgrading and transfer.*—While there is present the unique principle of plant-wide seniority with its special significance, the industrial relations department maintains that a definite plan for upgrading is operating in a satisfactory manner. The union provisions which require that all openings be promptly posted provides the workers with generous opportunities for upgrading where their qualifications may be channeled to management, then the filing of applications, etc.

Classifications	Estimated hours training needed per class	Present number of employees in class	Hours training in November	Hours training Apr. 24 to Dec. 1, 1952
Sub and major:				
Assembler:				
Utility man.....	20	151		
Repairman.....	80-104	157		
Riveter assembler.....	40	758	8,161	112,762
Bench hand.....	240	351	45	43,354
Welder.....	80	24	1,631	24,777
Blueprint reading.....	24		13,064	13,064
Hydraulics.....				1,277
Utility man.....		63		
Repairman.....	80	625	916	3,732
Electrical.....				
Final:				
Functional assmbler.....		101	2,598	3,658
Electrical.....	80			
Hydraulics.....	40			
Mechanical.....	40			
Riveter assmbler.....	80-120	128	2,595	93,545
Bench hand.....		238		2,140
Inspection:				
Final Inspector.....	480	118	573	4,135
Assembly Inspector.....	200	134	1,220	7,591
Machining Inspector.....	170	112	936	10,165
Routing and receiving inspector.....	40-80	53	647	3,455
Machining and fabrication:				
Machining:				
Job setter ASM.....	16	2		48
Repairman.....	24	14	37	137
Job setter.....	24	85	542	121
Utility man.....	16	22	233	80
Screw machine operator.....	6	3		
Engine and turret lathe operator.....	8	44		244
Grinder operator.....	8	6	53	80
Boring machine operator.....	16	2		16
Spar cap mill operator.....	8	2		32
Production saw operator.....	4	3		
Radial or multiple drill.....	6	6		194
Drill press operator.....	6	23		
Mill operator.....	8	69	127	1,531
Assembling bench and helper.....	6	25		475
Fabrication:				
Power hammer operator.....	8	2		
Repairman.....	24	26	148	220
Utility man.....	20	66	508	910
Die and fabricating machine setter.....	12	82	18	287
Hand former.....	20	89		
Drop hammer operator.....	20	4		4,216
Routing drill and saw operator.....	6	35		
Press operator.....	6	32		
Shear operator.....	4	23		4,958
Brake and multiple punch operator.....	8	25		
Roll and strut form operator.....	8	18		
Assembler bench and helper.....	5	77		2,429
Assembly:				
Utility man.....	0	14		
Spray painter.....	2	28		
Process equipment operator.....	6	19		128
Paint mixer.....	6	4		
Utility man.....	0	3		20
Heat treat operator (steel).....	8	2		
Heat treat operator (aluminum).....	6	9		12
Assembler bench and helper.....	6	46		496
Production engineering:				
Tooling.....			462	
Tool and gage.....				3,800
Templet inspection.....				609
Layout inspection.....			172	1,042

#### Labor turnover

**Exit interviews.**—Exit interviews are not required for all employees in the event they are discharged, laid off, or quit. When there is exit interviewing it is handled by the employment interviewers and labor relations representatives. Exit interviewers do not see that the employee thoroughly understands reason for discharge or layoff. Appropriate department heads are not held responsible for correcting causes of quits, discharges, and layoffs.

Human relations training has not been given to all supervisors. The interviewer does not determine and record the reasons for the discharges and quits.

An attempt is made to interview quits at the labor relations counter on a limited basis. Some employees are given exit interviews at the personnel building on a voluntary basis.

*Rate of turnover*

DIRECT CHARGE AIRCRAFT—AUGUST, SEPTEMBER, OCTOBER, 1952

	Quits		Discharge		Layoffs		Military		Deceased		Total	
	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent
August 1952:												
Male.....	514	9.0	113	2.00	0	0	26	0.46	1	0.01	645	11.6
Female.....	76	11.8	2	.30	0	0	1	.15	0	0	79	12.3
Total.....	590	9.4	115	1.80	0	0	27	0	0	0	733	11.7
September 1952:												
Male.....	695	11.9	70	1.00	0	0	9	.15	1	.01	765	13.3
Female.....	96	8.4	10	.98	0	0	0	0	0	0	106	9.4
Total.....	791	11.1	80	1.10	0	0	9	.12	1	.01	881	12.7
October 1952:												
Male.....	606	10.6	78	1.30	.15	.15	67	.17	5	.08	765	13.4
Female.....	79	6.5	8	.66	.16	.16	0	0	1	.08	90	7.4
Total.....	685	9.9	86	1.20	.15	.15	67	.97	6	.08	855	12.3

NET GAIN OR LOSS (FOR SAME 3-MONTH PERIOD)

	Grand total for 3 months
Total accessions.....	3,297
Total separations.....	2,469
Net gain (or loss).....	828
Selective Service separations.....	103

ALLOCABLE DEPARTMENTS—AUGUST, SEPTEMBER, OCTOBER 1952

	Quits		Discharge		Layoffs		Military		Deceased		Total	
	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent	Num- ber	Per- cent
August 1952:												
Male.....	89	1.4	13	0.20	1	0.01	38	0.60	1	0.01	142	2.2
Female.....	51	3.4	2	.13	0	0	1	.06	0	0	54	3.7
Total.....	140	1.7	15	.19	1	.01	39	.50	1	.01	196	2.5
September 1952:												
Male.....	140	2.1	6	.09	7	.10	14	.21	0	0	167	2.6
Female.....	55	3.5	2	.12	0	0	0	0	0	0	57	3.6
Total.....	195	2.4	8	.10	7	.08	14	.17	0	0	224	2.8
October 1952:												
Male.....	93	1.4	9	.13	3	.04	13	.19	3	.04	121	1.8
Female.....	42	2.5	3	.18	2	.12	0	0	0	0	47	2.8
Total.....	135	1.6	12	.14	5	.06	13	.15	3	.03	168	2.0

NET GAIN OR LOSS (FOR SAME 3-MONTH PERIOD)

	Grand total for 3 months
Total accessions.....	1,826
Total separations.....	588
Net gain (or loss).....	1,238
Selective Service separations.....	66

Percentage rate of turnover <sup>1</sup>

	Men		Women		Total	
	Number	Percent	Number	Percent	Number	Percent
August 1952:						
All employees, all shifts.....	744	7.4	117	7.04	861	7.3
Production employees, all shifts.....	(2)	(2)	(2)	(2)	(2)	(2)
1st shift.....	(2)	(2)	(2)	(2)	(2)	(2)
2d shift.....	(2)	(2)	(2)	(2)	(2)	(2)
3d shift.....	(2)	(2)	(2)	(2)	(2)	(2)
September 1952:						
All employees, all shifts.....	872	8.4	146	6.6	1,018	8.1
Production employees, all shifts.....	(2)	(2)	(2)	(2)	(2)	(2)
1st shift.....	(2)	(2)	(2)	(2)	(2)	(2)
2d shift.....	(2)	(2)	(2)	(2)	(2)	(2)
3d shift.....	(2)	(2)	(2)	(2)	(2)	(2)
October 1952:						
All employees, all shifts.....	850	8.2	123	5.2	973	7.7
Production employees, all shifts.....	(2)	(2)	(2)	(2)	(2)	(2)
1st shift.....	(2)	(2)	(2)	(2)	(2)	(2)
2d shift.....	(2)	(2)	(2)	(2)	(2)	(2)
3d shift.....	(2)	(2)	(2)	(2)	(2)	(2)

<sup>1</sup> Includes quits, discharges, layoffs, military separations, aircraft direct and allocable aircraft.  
<sup>2</sup> Not available.

NOTE.—Turnover information by shifts not available.

## Rate of turnover by occupation

The 5 highest rates of turnover by occupations for the 3 months ending October 1952. (Not available.)

NOTE.—The above information is not immediately available. Detailed information can be obtained by analyzing daily labor separation turnover sheets for the last 3 months.

## Rate of turnover by department

Percentage rate of turnover by department, all manufacturing departments. (Not available.)

*Major causes of quits—Reducing turnover.*—The company has not been successful in reducing the quite rate among new employees during the past 3 months. The five major causes of quits in the plant and what the company has done in each case to reduce them are not available. Exact causes are unknown.

## Quit rate by length of service

For the 9 months ending September 1952, the quit rate among workers with 1 month up to 24 months of service was as follows:

	Men		Women		Total	
	Number	Percent	Number	Percent	Number	Percent
1 month and less.....	(2)	(2)	(2)	(2)	(2)	(2)
1 to 2 months.....	(2)	(2)	(2)	(2)	(2)	(2)
2 to 3 months.....	(2)	(2)	(2)	(2)	168	31.1
3 to 4 months.....	(2)	(2)	(2)	(2)	(2)	(2)
4 to 5 months.....	(2)	(2)	(2)	(2)	74	14.6
5 to 6 months.....	(2)	(2)	(2)	(2)	21	4.1
6 to 8 months.....	(2)	(2)	(2)	(2)	(2)	(2)
9 to 12 months.....	(2)	(2)	(2)	(2)	(2)	(2)
1 to 2 years.....	(2)	(2)	(2)	(2)	(2)	(2)

<sup>1</sup> Not known except on a one-time spot-check basis.

<sup>2</sup> On Sept. 27, 1952, a study was completed of 508 probationary employees hired at the beginning of the aircraft program. This study showed that 31.1 percent were separated within 3 months, 35.7 percent separated within 6 months and 49.8 percent were separated within 9 months. 255 or 50.2 percent remained on the roll after 9 months.

*Absenteeism (aircraft division).*

*Absence rates:*

	Percent
August 1952.....	5.8
September 1952.....	5.5
October 1952.....	6.2

Absence rates by sex (same 3 months): Not available.

Absence rates by shift (same 3 months): Not available.

Five most frequent reasons of absence: Not available.

*Personnel records*

The personnel department was contacted to determine what had been done to analyze turnover and absenteeism to find an improved basis of selection, they stated: "The University of Michigan will conduct a survey, a part of which will help determine causes of absenteeism and turnover, however, this survey has not been started due to lack of union cooperation to date."

*Women workers*

Women workers (Direct) represent 7 percent of the work force, and the attitude of management at this time is most favorable to their absorption in aircraft production. The attitude of the UAW is not favorable because of the acquisition of the advantages of seniority, which allegedly will pose a series of problems. That is, the bumping privilege and resultant elimination of male workers who are heads of families, at a later time when the entire plant reverts to automobile production.

*Wage and salary system*

The present 5-year contract places Kaiser-Frazer wages and salaries directly in line paid by the major automobile builders in the area. The recruitment of new workers of good quality and the retention of existing workers are very real problems. However, none of the shortcomings can be charged to an inadequate pay scale. The differential in the rates paid to supervisory workers average 10 percent above the scale of journeyman's rates and even though no overtime is paid for "casual" work, this has not created any difficulty.

Salaries paid to foremen on the second and third shifts are adjusted to the premium percentages applied to hourly workers.

The so-called fringe benefits, under the terms of the present UAW contract, are uniformly generous starting with the annual improvement factor which followed the cost-of-living adjustment at the outset of the present 5-year contract. Ample provision for paid vacations and free hospitalization are part of the collective-bargaining agreement. There are also the customary paid holidays (six—Christmas, Fourth of July, Thanksgiving, New Year's Day, Memorial Day, and Labor Day).

*Safety*

The company maintains a full-time safety engineer, with staff assistants to supervise the three shifts in the conduct of an effective accident reduction program.

Records are maintained to reflect the frequency and severity rates by department and type of injury. However, records are not set up to establish trends by shifts, jobs, and sex.

There is a labor-management joint safety committee, composed of six members, the safety director, assistant medical director, and plant engineer who periodically confer with three selected union representatives.

The rates shown on the following table are in accordance with average expectancy:

[Percent]		
Accident rates	1951	Year to date
Frequency rate.....	1.9	3.1
Severity rate.....	.53	.31

The three departments with highest rates:	
Frequency rate:	Percent
No. 212. Fuselage department.....	6. 5
No. 213. Center wing department.....	6. 3
No. 202. Machining department.....	6. 2
No. 312. Tooling and maintenance department (allocable).....	1. 69
Severity rates:	
No. 212. Fuselage department.....	. 18
No. 202. Machining department.....	. 10

#### *Communications*

As a means of furthering the knowledge of their employees in the general affairs of the company, the Kaiser-Frazer Automotive and Aircraft News is published and distributed to all employees on a semimonthly basis. The usual emphasis is placed upon the social affairs of the various employee organizations.

#### *Suggestion program (incentive cash awards)*

No such program exists at the time. The principle involved has been discussed with the personnel director with particular reference to two possible and desirable objectives; first, to create more interest on the part of the worker in stimulating his initiative to find new and better ways in which to perform his job, and in competition with others, offer cash awards and public citations for more efficient methods for practical, money- and time-saving suggestions; secondly, the recognition of the individual's importance in the organization improves general performance standards and improves morale at cost far below the very real benefits accruing to management.

#### *Out-plant conditions*

*Housing and transportation.*—Since the Kaiser-Frazer plant at Willow Run is located in a distinctly suburban area 6 miles from Ypsilanti, 11 miles from Ann Arbor, and 10 miles from Wayne, there is scarcely any housing with the exception of a small Federal Public Housing Administration project located at Willow Run. This means that the 13,000 workers engaged in aircraft production commutes daily between these and a dozen other small communities in metropolitan Detroit. There is also a substantial number who commute from Dearborn and west Detroit—distances of 25 and 30 miles respectively. Numerous new plants and additions have created a terrific demand for housing of every type, particularly rental units which have not been popular in the several nearby communities with the builders who have been skeptical of the duration of the present demand which they feel is not permanent.

Since the Kaiser-Frazer Co. has relied almost entirely on metropolitan Detroit's labor supply, it has not actively participated beyond the assignment of a clerk in the personnel department to assist and direct those who seek better housing.

Since all workers must be considered as commuters, the problem of transportation in the virtual absence of public facilities has had to be resolved by use of private car "share the ride" program which is strongly sponsored by management through the means of the personnel department and all plant supervision.

Bus service by means of limited and costly Greyhound facilities are available but of little use. The Kaiser-Frazer Co. has conducted an intensive campaign to sell all employees either a Kaiser or a Henry J car at dealer's cost plus a small fee for servicing; and judging by the number of such cars parked in the company's ample parking facilities, a real contribution has been made to a complex problem.

#### MANPOWER BY CLASSIFICATION

Final assembly division No. 220  
Processing department No. 201  
Fabrication department No. 201  
Machining department No. 202  
Sub and major assembly division No. 210  
Major work stations

Manpower by classification by work station—Final assembly division No. 220

Work stations	Utility, 70214, \$1.89 (single)	Repair, 70213, \$1.84 (single)	Functional assembler, 70210, \$1.69-\$1.79	Riveter, 70205, \$1.61-\$1.71	Bench hand, 70200, \$1.56-\$1.66
No. 8, center wing mating.....	15	50		153	13
No. 7, shake down.....		94			9
No. 7, empenage installation.....	12	20	8	30	28
No. 6, cargo door installation.....	8	28	11	28	48
No. 5, outer wing installation.....	8	46	25	6	38
No. 4, cargo floor installation.....	4	43	33		19
No. 3, install personnel equipment.....	2	23	11		10
No. 2, prop. installation.....	1	14	6		1
No. 1, shake down.....	6	117			48
Miscellaneous.....	8	169	4		40
School.....		42			
Total.....	64	646	98	217	254
Total all classifications, 1279.					

Manpower by product unit by classification

DEPARTMENT NO. 201—PROCESSING (HOURLY)

Classification	1st shift	2d shift	3d shift	Total
Assembly bench hand helper, 70500, \$1.56-\$1.66.....	3	18	25	46
Heat treatment operator, aluminum, 70505, \$1.66-\$1.76.....	1	4	4	9
Heat treatment operator, steel, 70510, \$1.71-\$1.81.....	0	1	1	2
Utility man, 70514, 10 cents/maximum.....	1	1	1	3
Process equipment, 70605, \$1.61-\$1.71.....	2	8	9	19
Paint mixer, 70610, \$1.61-\$1.71.....	2	1	1	4
Spray painter, 70615, \$1.66-\$1.76.....	15	6	7	28
Utility man, 70624, 10 cents/maximum.....	3	6	5	14
Processing total (hourly).....	27	45	53	125

DEPARTMENT NO. 201—FABRICATION (HOURLY)

Assembly bench hand helper, 70400, \$1.56-\$1.66.....	5	39	33	77
Router, drill and saw, 70405, \$1.61-\$1.71.....	1	17	17	35
Press operator, 70410, \$1.61-\$1.71.....	1	15	16	32
Shear operator, 70415, \$1.61-\$1.71.....	0	11	12	23
Brake multiple punch operator, 70420, \$1.61-\$1.71.....	2	12	11	25
Roll and stretch form, 70425, \$1.61-\$1.71.....	1	9	8	18
Hand former, 70430, \$1.71-\$1.81.....	2	45	42	89
Drop-hammer operator, 70435, \$1.71-\$1.81.....	0	2	2	4
Utility man, 70444, 10 cents/maximum.....	3	32	31	66
Dio and fabricator machine setter, 70445, 10 cents/maximum.....	7	37	38	82
Repairman, 70447, \$1.96 (single).....	0	13	13	26
Power-hammer operator, 70450, \$1.86-\$2.06 (merit).....	0	1	1	2
Fabrication total (hourly).....	22	233	224	479

DEPARTMENT NO. 202—MACHINING (HOURLY)

Assembly bench hand helper, 70300, \$1.56-\$1.66.....	0	14	11	25
Drill press operator, 70305, \$1.56-\$1.66.....		11	12	23
Mill operator, 70310, \$1.56-\$1.66.....		38	31	69
Spar cap mill operator, 70315, \$1.61-\$1.71.....		1	1	2
Production saw operator, 70320, \$1.61-\$1.71.....		2	1	3
Ramult drill press operator, 70325, \$1.61-\$1.71.....		4	2	6
Automatic screw machine operator, 70330, \$1.66-\$1.76.....		1	2	3
Engine and turret lathe operator, 70335, \$1.66-\$1.76.....		21	23	44
Grinder operator, 70340, \$1.66-\$1.76.....		3	3	6
Boring machine operator, 70345, \$1.66-\$1.76.....		1	1	2
Utility man, 70354, 10 cents maximum.....		12	10	22
Job setter, 70355, 15 cents maximum.....		41	44	85
Job setter automotive screw, 70360, \$1.96 (single).....		1	1	2
Repairman, 70365, \$1.96 (single).....		7	7	14
Machining total (hourly).....	0	157	149	306

*Manpower by classification*

Division No. 210—sub and major assembly:	Manpower
Fabricator, 70012, \$1.96 (single).....	43
Utility man (assembly), 70014, \$1.89 (single).....	152
Repairman (assembly) 70013, \$1.84 (single).....	157
Assembler (functional), 70010, \$1.69-\$1.79.....	2
Riveter (assembler), 70005, \$1.61-\$1.71.....	754
Assembler (wrench hand), 70000, \$1.56-\$1.66.....	349
Welder (spot), 59120, \$1.56-\$1.66.....	6
Utility (spot weld), 59124, 10 cents maximum.....	1
Welder (arc), 70100, \$1.76-\$1.86.....	3
Repairman (arc weld), 70103, \$1.91 (single).....	2
Welder (gas), 70150, \$1.76-\$1.86.....	13
Repairman (gas weld), 70153, \$1.91 (single).....	2
Utility man (gas weld), 70154, \$1.96 (single).....	1
Sewing machine operator, 57940, \$1.61-\$1.71.....	10
Cutter trim leather and utility, 51344, 10 cents maximum.....	2
Crane hooker, 41220, \$1.56-\$1.66.....	12
School, riveting, 70005, \$1.61-\$1.71.....	7
School, blueprint, 70005, \$1.61-\$1.71.....	49
School, utility, 70014, \$1.89 (single).....	17
School, welding (arc), 70100, \$1.76-\$1.86.....	9
School, welding (gas), 70150, \$1.76-\$1.86.....	15
Sub and major assembly total (hourly).....	1, 606
Major work stations:	
Machine subassembly.....	65
Miscellaneous subassembly and canopy.....	36
Electrical.....	107
Welding.....	45
Tubing.....	37
Cut and sewing.....	18
Engine cowling.....	35
Nose section.....	149
Sides.....	54
Tops.....	132
Bottoms.....	94
Tops-bottoms subassembly fuse.....	101
Nacelles.....	114
Subassembly spars, etc.....	118
Box halves.....	109
CTR section, CW station 13 and 14.....	90
CW line and station 9-10-11 and 12.....	68
Leading edge trailing edge.....	
Engine dressup.....	83
Fabricators.....	43
School, riveting.....	17
School, welding.....	13
School, blueprint.....	66
Total.....	1, 594



DISTRIBUTION OF ENGINEERING PERSONNEL

*Detail breakdown of engineering personnel—Dec. 1, 1952*

Experimental and development:	
Engineers.....	0
Draftsmen.....	0
Engineering personnel.....	0
Total.....	0
Projects:	
Engineers.....	54
Draftsmen.....	102
Engineering personnel.....	309
Total.....	465
Field services:	
Engineers.....	0
Technicians.....	0
Draftsmen.....	0
Engineering personnel.....	0
Total.....	0
Manufacturing engineering:	
Tool engineers.....	198
Draftsmen.....	22
Engineering personnel.....	257
Total.....	477
Plant facilities engineers:	
Plant facilities engineers.....	49
Draftsmen.....	12
Engineering personnel.....	10
Total.....	71
Plant construction engineers:	
Plant construction engineers.....	4
Draftsmen.....	2
Engineering personnel.....	0
Total.....	6
Plant layout equipment engineers:	
Plant layout equipment engineers.....	32
Draftsmen.....	9
Engineering personnel.....	12
Total.....	53
Quality control engineers:	
Quality control engineers.....	0
Draftsmen.....	0
Engineering personnel (Function on Material Review Board).....	4
Total.....	4
Safety engineers <sup>1</sup> :	
Safety engineers <sup>1</sup> .....	9
Draftsmen.....	0
Engineering personnel.....	0
Total.....	9
Industrial engineers:	
Industrial engineers.....	40
Draftsmen.....	0
Engineering personnel.....	14
Total.....	54
Grand total.....	1, 139

<sup>1</sup> Carried on K-F rolls as safety inspectors.

The engineering training program is a part of the engineering department. (See attachment.)

A brief description of programs for the maximum utilization of the highest engineering skills of the engineering personnel. (See attachment.)

Engineering cost reduction programs (other than time-study industrial or methods engineering). (See attachment.)

The engineering department does not use electronic computers.

The maximum engineering salary and minimum draftsman's wage rate is \$800 per month and \$294.88 per month (40-hour week) respectively.

There is a cost-of-living bonus added to the above rates.

The standard work week is 40 hours.

Selected groups are scheduled to work up to 48 hours per week.

Number of additional engineering personnel needed—(all for aircraft engineering):

	At present	3 months projected	6 months projected
Engineers <sup>1</sup> .....	3	8	10
Draftsmen <sup>1</sup> .....	5	12	16
Engineering personnel <sup>1</sup> .....	2	4	7

<sup>1</sup> Although no additional plant engineering personnel is anticipated experienced aircraft tooling engineers are needed to take the place of a number of present tool engineers who lack aircraft tooling experience.

Other items that indicate good utilization of engineering manpower: (See attachment).

Production is being retarded by tooling. The present status of tooling not correct to latest engineering is caused by the lack of experience among the tool engineers rather than the lack of engineers.

The engineering department anticipates little difficulty on the C-123 program engineeringwise providing there are no major engineering changes after testing the prototype aircraft. Should testing of the first prototype aircraft indicate the necessity of major engineering changes then the program will require tool engineers possessing better qualified experience than the average Kaiser Manufacturing Corp. tool engineer.

*Aircraft engineering.*—On-the-job training of graduate engineers by having them assist experienced engineers within the shop liaison, stress, weights, and material review engineering groups.

The practical training of personnel to fulfill engineering positions within the detailing and lofting classifications.

The training of personnel to fulfill semitechnical positions for the purpose of relieving the more skilled personnel so they in turn may be utilized to better advantage on engineering work.

It is to be noted that the engineering department does not maintain a specific department or group for the purpose of engineering training.

The training of personnel to fulfill semitechnical positions and in turn utilizing to better advantage technical personnel on engineering work resulting in payroll cost improvements.

*Plant engineering.*—Orientation program through layout model, on-the-job training.

Specialized training within individual engineering sections.

*Brief description of programs for the maximum utilization of the highest engineering skills of the engineering personnel*

*Plant engineering.*—Engineering department divided into specialized sections to utilize the highest individual engineering skill.

Constant examination of background, experience, etc., and placement in the proper engineering section.

*Engineering programs (other than time-study industrial or methods engineering) for cost reduction*

*Aircraft engineering.*—It is to be noted that Kaiser-Frazer has manufacturing responsibility only, on the C-119 and C-123 programs. The basic engineering design and responsibility being with Fairchild and Chase, respectively. Kaiser-Frazer, however, constantly reviews the design of the product with regard to improving manufacturing method and procedures.

The constant review of engineering changes affecting the manufacturing and costs of the aircraft.

*Plant engineering.*—Constant analysis of material handling and overall layout studies to reduce production costs.

Constant examination of manufacturing processes to insure utilization of latest techniques.

Providing of adequately engineered projects to cut construction and installation costs.

Frequent analysis of utilities costs.

The CHAIRMAN. The Chair has indicated that Senator Potter, of Michigan, from Mr. Kaiser's State where the Willow Run plant is located, has asked to say just a word.

Senator Potter, we will be glad to hear from you.

**STATEMENT OF THE HONORABLE CHARLES E. POTTER, A UNITED STATES SENATOR FROM THE STATE OF MICHIGAN**

Senator POTTER. Thank you kindly, Mr. Chairman, for this opportunity to appear before your subcommittee to make this brief statement concerning this controversy.

The questions raised concerning the Kaiser-Frazer Corp. with respect to its construction and production of C-119 cargo aircraft are of serious consequence affecting not only the reputation of the corporation but the morale of its 19,476 employees in Michigan.

Accordingly, I was heartened when the committee asked that all the facts be presented in a clear and open manner. The livelihood of over 19,000 workers depends upon the continuance of the Willow Run contract. Therefore, it is all the more important that the facts surrounding these questions be made known as soon as possible.

I do not condone wasteful practices in the fulfillment of any defense contract. These contracts must be completed in a most efficient manner and at the least expense. I do believe, however, that in this case where several grave accusations have been made against the Kaiser-Frazer people in the execution of its contract that representatives of Kaiser-Frazer should be given a full opportunity to present their side of the case.

I am sure that if the committee has any suggestions to make with respect to reducing costs or inefficient operation that these will be welcomed and deeply appreciated by the Willow Run corporation.

I want only to say that the physical and manpower facilities at Willow Run have few equals. The skilled labor clearly demonstrated this productive output in World War II and at other times.

Its skill and ingenuity have made invaluable contributions to the defense and security of our Nation, and the economic welfare of our State of Michigan.

I am therefore hopeful that the questions raised in connection with the performance of the C-119 contract will be cleared up thoroughly and without delay.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Potter. We are glad to hear from you.

Mr. Kaiser, do you want to take the stand, sir?

Do you solemnly swear that the testimony you will give is the truth, the whole truth, and nothing but the truth, so help you God?

Mr. KAISER. I do.

TESTIMONY OF HENRY J. KAISER, CHAIRMAN OF THE BOARD OF  
KAISER MOTORS CORP.

The CHAIRMAN. Your full name is Henry—

Mr. HENRY J. KAISER. Henry J. Kaiser.

The CHAIRMAN. And you are chairman of the board of the Kaiser-Frazer Corp.?

Mr. HENRY J. KAISER. That is true.

The CHAIRMAN. And you have requested this committee, by letter, to appear and make a statement to the committee regarding the investigation which the committee is conducting on the procurement of airplanes.

The committee has before it a copy of your statement which was delivered to us, as requested, 24 hours in advance. You may proceed, Mr. Kaiser.

Mr. HENRY J. KAISER. Mr. Chairman and members of the committee, I wish to thank you for the opportunity of appearing before you at this hearing.

Your committee conducted hearings from June 2 through June 5, 1953, on the award of a contract by the Air Force to Kaiser-Frazer Corp. to manufacture C-119 aircraft. These hearings covered the award of the contract, performance and costs. During the 4-day session, the committee heard from 4 Air Force representatives. No witnesses were called from Kaiser-Frazer.

Your committee has not only granted our request to be heard, but has also invited a witness from Fairchild Engine & Airplane Corp. to testify today. I will have some remarks to make at a later point in this statement about the attacks that have been made on us by Fairchild.

I will also have some things to say about the manner in which Fairchild has been performing its contract with the Government to furnish us the technical data needed to build the C-119, a plane owned for military purposes—not by Fairchild—but by the United States.

Fairchild's attacks and Fairchild's lack of cooperation have a very important bearing on the false impressions that have been created about our operations.

Senator SYMINGTON. Could I interrupt you?

Mr. HENRY J. KAISER. Yes.

Senator SYMINGTON. Have you detailed the attacks in your statement?

Mr. HENRY J. KAISER. Edgar will give them all to you on the 88-page statement as soon as I have finished.

Fairchild is engaged in a vigorous assault against us in its own competitive interest. Competition is healthy, and we are not afraid of competition or a fight.

But first, I would like to take up some of the false impressions about our company that were created in the first 4 days of these hearings.

The line of questioning during the first 4 days did not develop the whole story. This created a misleading and incorrect impression in the minds of the public. In a number of instances, the actual testimony given by the witnesses, and especially documents that were filed without being read, did not substantiate the impressions that were created.

The impressions created can be summarized as follows:

1. The first impression was that the award of the C-119 contract to Kaiser-Frazer was irregular, or worse.

The facts, as shown by a study of the transcript, are that all the witnesses questioned on this subject testified there was no political pressure—no improper influence of any kind or character with respect to the award of the contract. The committee's investigators have complete records with respect to the following facts:

First, Kaiser-Frazer's Willow Run plant had long been a part of the aircraft mobilization program, and contract studies had been under way for utilization of the plant on Boeing B-50's and B-47's, as a second source, for almost a year before the letter of intent awarding the C-119 contract.

Definitive contracts, providing for formal studies, in effect for a year, before the award of the C-119 contract—

Mr. ANTON. You mean formal studies for the C-119?

Mr. HENRY J. KAISER. No. Formal studies for the B-47 do not support the impression created that the decision to use Willow Run as a second source was made with haste, or without careful study by the Air Force.

Two additional and much larger second-source contracts were awarded by the Air Force during the same month, one to General Motors for the Republic F-84, and one to Lockheed for the Boeing B-47.

Second, Willow Run was built by the Air Force specifically as a major aircraft-producing plant. The Air Force had complete performance and cost records on World War II production of aircraft in the Willow Run plant. The Air Force, therefore, knew Willow Run as well as, or better than, any plant in their entire program.

Senator SYMINGTON. Could I interrupt there?

Mr. HENRY J. KAISER. Yes.

Senator SYMINGTON. What do you mean by that?

Mr. HENRY J. KAISER. The Air Force was fully cognizant and did have cognizance of that plant.

Senator SYMINGTON. There are a lot of plants where the Air Force had orders and which took reorders. Willow Run never got up to the capacity it was built for—I think we all know that—in B-24's. I don't quite see why you would imply that it was better known than any plant in the entire program. Some of the Air Force plants have been going for many years, and some at capacity for many months, if not years.

I just mention that in passing.

Mr. HENRY J. KAISER. At this point may I have Edgar sworn in? He will give you the facts.

The CHAIRMAN. Do you solemnly swear that the testimony you are about to give is the truth, the whole truth, and nothing but the truth, so help you God?

Mr. EDGAR F. KAISER. I do.

The CHAIRMAN. Your name is Edgar F. Kaiser. You wish to supplement Mr. Henry Kaiser's testimony in answer to Senator Symington?

Mr. EDGAR F. KAISER. I am familiar with the facts because I am the president of the corporation. When detailed questions are asked I would like to answer those if my father refers the questions to me.

The CHAIRMAN. Senator Symington?

Senator SYMINGTON. You say the Air Force knew about the Willow Run plant better than any plant in the war program. I do not understand that. It is a plant that never operated at capacity. The war was over before it really operated well.

Mr. EDGAR F. KAISER. It did get over 400 airplanes a month. Willow Run was the subject of great criticism during World War II because it had very high costs in the beginning and it was slow to start. But once it got rolling, if my recollection serves me correctly, it was considerably a lower cost producer than the prime producer. I think it got down to three-tenths of a man-hour per pound.

Senator SYMINGTON. I think a very good job was done there but I just do not see why you feel that inasmuch as the plant never got to capacity that it was better known than any other plant in the Air Force program.

Mr. EDGAR F. KAISER. I think for this reason: we feel, and our people feel, that an impression has been created that the Air Force just overnight walked into Willow Run and handed this contract to Kaiser-Frazer without any consideration of it. There had been long months of study on the plant. They knew what kind of a plant it was, what type of aircraft it was suited to. This was not something that just came up to go into. We say that the real point here is that this was not—there are a lot of dates brought into this as though we just suddenly walked into this on December 5, said "Boys, we have some money from the RFC, we were told to get defense work and we walk over and get some." That is not what happened.

Senator SYMINGTON. As you know, I know a little bit of what did happen. You were anxious to get going on aircraft production in that plant.

Mr. EDGAR F. KAISER. That is right.

Senator SYMINGTON. I felt that was inadvisable, as you know. We discussed that.

Mr. EDGAR F. KAISER. I think you were more concerned about the business itself.

Senator SYMINGTON. I was only going to this particular point. It would be my impression that the Air Force knew some plants a great deal better than they did this particular plant.

Mr. EDGAR F. KAISER. To answer your question, the cost of Willow Run at the end will answer why it was well known. It had such a remarkably low cost.

Senator SYMINGTON. I do not doubt it was well known. You say better known, in effect. You imply it is better known. I do not see how that is possible.

Mr. EDGAR F. KAISER. Any program that gets under fire—as Willow Run was under World War II—gets pretty well known.

Mr. HENRY J. KAISER. Third, with the Chinese Communist armies pouring into Korea, at the very time the award was made to Kaiser-Frazer, the urgency of the requirement for additional cargo aircraft was not only evident, but a matter of public knowledge.

Fourth, Kaiser management has an excellent World War II performance record—outstanding as to both cost and production speed.

Mr. ANTON. Do you refer here to aircraft of an outstanding record as to both cost and production speed?

Mr. HENRY J. KAISER. Any item you want to take up.

Mr. ANTON. I am interested in——

Mr. HENRY J. KAISER. Which one?

Mr. ANTON. Does this include aircraft?

Mr. HENRY J. KAISER. Yes, it does.

Mr. ANTON. Here is a document from the Navy. It is entitled "Synopsis of Review Board Hearings on the BTK Navy Torpedo Bomber." This bomber was built by Kaiser Fleetwings. The contract was given in March 1944 for 22 of these torpedo bombers. In August of 1946 the Navy terminated this contract after only five bombers had been completed. Among the reasons given in this document are these two: The contract had entered "the runaway cost status and secondly, the contractor failed to produce airplanes fast enough or in sufficient quantity to be of use."

Would you not say that Kaiser-Frazer performance of the C-119 contract bears a striking resemblance to the torpedo bomber contract?

Mr. HENRY J. KAISER. I think you ought to give me time to get that information correct. There have been so many false statements presented here that I think now we ought to have real, truthful statements. Why do you not mention Brewster?

Mr. EDGAR F. KAISER. Dad, I think I can answer. I know something about that contract.

Mr. HENRY J. KAISER. All right.

Mr. EDGAR F. KAISER. I think you are right. I think there is some similarity between the two. But it is not the one that you are trying to draw. The similarity is this: In 1946, when that contract was canceled, the war was over, World War II was over, and we were on a downgrade at Kaiser Fleetwings. We had a large work force that had been doing B-17's more than competitively with the industry—B-17 parts. On a downgrade, at the end of the war, you got a real problem; bring down your overhead. It is another instance of reprogramming. The airplane also, it is probably contained in that report—I have not seen it—also is not as operational as some other aircraft that the Navy had in production. At Willow Run you had the same thing. Rush into it at Korea, tool for 93 with your machine tooling capacity, have a PAB behind it of 200, and be ready to turn it on. A reprogramming that brings you back down. I think they are similar.

I do not think you draw the conclusion that management is "no do." You draw the conclusion that the conditions were the same at the same time.

Mr. HENRY J. KAISER. You must have in your possession five telegrams from the Navy commending Kaiser-Frazer. Have you those in your possession?

Mr. ANTON. Are you talking about the Brewster contract?

Mr. HENRY J. KAISER. Yes. Have you those telegrams?

Mr. ANTON. I believe you have put them in the record.

Mr. HENRY J. KAISER. Why do you mention those?

Mr. EDGAR F. KAISER. Why do you only bring out the bad ones?

The CHAIRMAN. Just a minute.

Mr. EDGAR F. KAISER. I beg your pardon.

The CHAIRMAN. We are asking you questions. You are testifying, rather than putting members of the staff on the griddle here. Go ahead, Mr. Kaiser.

Mr. HENRY J. KAISER. Fifth, the only plant producing the C-119—the Government-owned Hagerstown plant—was scheduled to full capacity.

Mr. ANTON. Could I interrupt you?

Mr. HENRY J. KAISER. Yes.

Mr. ANTON. According to the testimony of General Cook, given to this committee, and Mr. McCone, the production of the Hagerstown plant was 8 planes a month. That was not the full scheduled capacity. Are you right or is General Cook right?

Mr. EDGAR F. KAISER. We are both right, and again you are drawing the wrong inference. General Cook said that they are on an accelerating schedule if I recall it correctly, that they had been authorized to increase that schedule—and I am quoting from memory now, not what Cook said but my recollection of the program—that they were scheduled at that time to go up to 22 and they subsequently increased it to 30 some-odd.

Mr. ANTON. Do you know when that schedule went into effect?

Mr. EDGAR F. KAISER. No, sir; I do not.

Mr. ANTON. To 22 and then 30?

Mr. EDGAR F. KAISER. No, sir.

Mr. ANTON. The documents that we have on file indicate it was not until a year later. You may proceed.

Mr. EDGAR F. KAISER. That it was not a year later that they were authorized to increase from eight a month? I think there is something wrong with that because if they were a year later building 22 a month then they did something without being authorized to do it.

Mr. ANTON. You may proceed, Mr. Kaiser.

Mr. HENRY J. KAISER. Therefore, another source was needed to meet the C-119 requirement. Right there I would like to say that they did develop a source. They spent several millions with Fairchild on the Douglas plant later. The other available and suitable facilities were all earmarked for even more urgent projects, such as the production of B-47 bombers. In spite of all the above facts, the impression was created that the Air Force was not justified in selecting the Willow Run plant.

2. The second impression created was that Kaiser-Frazer's costs on the C-119 contract are excessive and exorbitant, that management is inexperienced in aircraft production, that operation is inefficient, and that the Air Force has failed to exercise proper control. However, the committee's staff has been supplied with complete information with respect to Kaiser-Frazer's performance and costs, as well as the Air Force reports on the quality of our performance. But the favorable portions of this information were not brought out at the hearings.

Senator SYMINGTON. Could you develop that? What do you mean by favorable portion? Would you mind touching on that lightly at this point?

Mr. EDGAR F. KAISER. I think perhaps the most outstanding is the Air Force sent in a survey team. It made several reports on the conditions overall, at Willow Run, while the C-119 was being built. I think there are three reports. The last report, if I recall correctly, was some time in April, which is available to this committee, goes down the line with a great list. It is rather complimentary of what is done at Willow Run and what we have done. No mention was made of that at this hearing. We have detailed parts of it.

Senator SYMINGTON. Thank you.



Mr. HENRY J. KAISER. The committee staff had numerous reports in its possession, showing the findings of Air Force teams that visited the Willow Run plant during various stages of the production operations. As we will show in our testimony, these reports reflect material improvement in all phases of operation, and conclude that our organization compares favorably with those of other airframe manufacturers. There are some 750 management and supervisory personnel in the Aircraft Division at Willow Run who have had previous aircraft experience. These facts have not yet been brought out in these hearings.

General Cook stated a number of times in the hearings that Kaiser-Frazer's costs should not be compared with Fairchild's. General Cook offered to provide an expert witness to furnish an analysis of why the cost figures are not comparable, but this witness was not called before the hearings were recessed.

The impression has certainly been left in the public mind that Fairchild's costs per plane can fairly be compared with our costs. The \$260,000 cost of Fairchild is after Fairchild has had the benefit of a Government-furnished plant, free of cost to Fairchild; a large portion of its tooling costs and plant rearrangement costs written off on previous contracts; and learning experience gained on over 800 aircraft of the same basic type. Kaiser-Frazer's cost of \$1,200,000 per plane is based on a privately owned plant, with all of the tooling and all the plant rearrangement costs written off on a total of only 159 planes. No one brought out the fact that, if Kaiser-Frazer built 800 or more of this basic type of aircraft, its costs would be \$260,000 or less.

Mr. ANTON. Might I interrupt you at this point, Mr. Kaiser? I think the committee would be interested in knowing how you calculated this figure.

Mr. EDGAR F. KAISER. I think I can show you that. This gives you a pretty good picture of what the comparison is. This material is taken from the Air Force source books and this shows the World War II records of man-hours per pound of airframe weight in various planes. It shows the B-24 at Ford Willow Run, which is the A curve. Starting out, if you will notice, with the highest cost, going clear down here below anyone else. These are man-hours per pound of airframe, and it is a logarithmic chart. So you see this is 4, 10, 20, 40. These are planes, starting with 1 plane, 10 planes, 100, then it goes in increments of 150, 200, 400, and so on.

Senator SYMINGTON. Mr. Kaiser, could I interrupt you there?

Mr. EDGAR F. KAISER. Surely.

Senator SYMINGTON. You have been in the production business for a long time; have you not?

Mr. EDGAR F. KAISER. Yes, I have.

Senator SYMINGTON. That is my impression. We have discussed it a lot. When this contract was made you made an estimate of what the plane would cost and gave it to the Air Force?

Mr. EDGAR F. KAISER. Not at the outset.

Senator SYMINGTON. Have you ever made an estimate of the cost of the plane?

Mr. EDGAR F. KAISER. Yes.

Senator SYMINGTON. When?

Mr. EDGAR F. KAISER. I made two.

Senator SYMINGTON. Two in what year?

Mr. EDGAR F. KAISER. We made the last one in May of 19—I think it is May—of 1952, which reflected the stretchout program.

Senator SYMINGTON. Is that the first estimate you made of the cost of the plane?

Mr. EDGAR F. KAISER. No.

Senator SYMINGTON. What was the first estimate of the cost?

Mr. EDGAR F. KAISER. The first estimate, I think, was about 6 or 8 months after the letter contract, after we had had a chance to get the drawings and study them over.

Senator SYMINGTON. Would you mind putting a rough date on that?

Mr. EDGAR F. KAISER. I think by November of 1951.

Senator SYMINGTON. What was that figure?

Mr. EDGAR F. KAISER. About \$840,000.

Senator SYMINGTON. What is the cost of the airplane to the Air Force today?

Mr. EDGAR F. KAISER. I cannot answer that because I am getting into trouble——

Senator SYMINGTON. Would you care to guess at it?

Mr. EDGAR F. KAISER. A different airplane. You see, this reflected a model—the 840 reflected a model C. This committee does not have the understanding that we have built an F, not a C.

Senator SYMINGTON. You are the president of the company?

Mr. EDGAR F. KAISER. Right.

Senator SYMINGTON. Do you not know what the estimated cost of your airplane is today?

Mr. EDGAR F. KAISER. What the estimated cost is?

Senator SYMINGTON. Yes.

Mr. EDGAR F. KAISER. Yes.

Senator SYMINGTON. What do you figure the cost today?

Mr. EDGAR F. KAISER. On what basis?

Senator SYMINGTON. On the basis of what you will be paid for when you deliver the plane.

Mr. EDGAR F. KAISER. No. We do not get paid per plane. You mean on 159?

Senator SYMINGTON. All I am saying is you gave a cost of eight-hundred-some-thousand dollars.

Mr. EDGAR F. KAISER. That is on 200.

Mr. HENRY J. KAISER. On a different plane.

Senator SYMINGTON. What is the estimate on the cost of the plane today?

Mr. EDGAR F. KAISER. On the basis of 159, C-119F's, with complete amortization, a preproduction, plant rearrangement, machine-tool capacity for 93, prepared necessary capacity to 220, about \$1,247,000. In that neighborhood.

Senator SYMINGTON. Do you think that figure is going up or do you think it is going down as an average in this contract? I am looking at the B-24 charts but I do not think they are quite comparable to C-119 charts.

Mr. EDGAR F. KAISER. The Air Force estimators think it is going up. I think it is going down.

Senator SYMINGTON. That is what I wanted to know. Thank you.

Mr. EDGAR F. KAISER. But I still want to cover the picture here as to where Kaiser-Frazer's C-119 man-hours fit in relation to these

major programs. That does not show excessive, exorbitant. That shows we are about average and I wish we were better.

Mr. ANTON. How many man-hours is it taking per plane right now?

Mr. EDGAR F. KAISER. I cannot answer the question, and no one else can. We can give you estimates. Just a minute. Let me tell you why I cannot because it is fair to tell why you cannot do that. These airplane costs are kept in lot numbers. Lots of so many airplanes. There is a group of parts being made here, and a certain number of lot numbers. It is impossible to plug the figure that you are asking for.

Mr. ANTON. What figures do you use to arrive at this chart?

Mr. EDGAR F. KAISER. What you do is take the completion of the lot numbers of airplanes.

Mr. ANTON. In man-hours?

Mr. EDGAR F. KAISER. In man-hours. Then you take the outside—because this includes outside subcontractors because we developed new contractors also.

Mr. ANTON. How many points did you use in man-hours to arrive at that chart? In other words, you took one block of man-hours, subsequently another block of man-hours, and possibly another.

Mr. EDGAR F. KAISER. To this point, we are based on 71 equivalent airplanes.

Mr. ANTON. What are the man-hours per plane at that point in order to draw the formula? That has to be done, you know?

Mr. EDGAR F. KAISER. I want to refer to the figures because this is a per pound of airframe basis. I can give you those figures on an equivalent lot basis. Let me refer to them so I am not quoting something and then get into trouble about that later.

Senator SYMINGTON. Could I ask one more question?

Mr. EDGAR F. KAISER. Yes.

Senator SYMINGTON. If you believe the costs are going down and the Air Force believes they are going up, at this point, in order to save a lot of the interest in the committee's problems, would you be willing to take the job from here out at a fixed price?

Mr. EDGAR F. KAISER. Our testimony offer is we will do it without redetermination.

Senator SYMINGTON. At a fixed price?

Mr. EDGAR F. KAISER. Yes; without redetermination.

Senator SYMINGTON. What is the fixed price?

Mr. EDGAR F. KAISER. We do not know because we would have to determine what the conditions are. After all, this has just come up. We have to make an estimate on it. If I say what it is, it is going to be considerably less than this \$1,200,000, I can tell you that. That is going to mislead you, too. You see, as Senator Bridges said, \$168 million for 59 airplanes, that is not right.

Senator SYMINGTON. You would not want to take a fixed price to include tool amortization?

Mr. EDGAR F. KAISER. We have been paid——

Senator SYMINGTON. Naturally, it should be less.

Mr. EDGAR F. KAISER. We have been paid so much already. So the finished item contract is going to be considerably less per airplane.

Senator SYMINGTON. Would it be less than your original price on the first 200?

Mr. EDGAR F. KAISER. Yes, sir.

Senator SYMINGTON. Under \$800,000?

Mr. EDGAR F. KAISER. Yes, sir.

Senator SYMINGTON. For how many airplanes?

Mr. EDGAR F. KAISER. For the balance of the contract which probably, if it is 159, by the time we negotiate it, I would guess 60 to 70.

Senator SYMINGTON. Thousand dollars?

Mr. EDGAR F. KAISER. No, number of airplanes. You said "for how many airplanes."

Senator SYMINGTON. Would it be under \$260,000?

Mr. EDGAR F. KAISER. No.

Senator SYMINGTON. Would it be over that?

Mr. EDGAR F. KAISER. Yes.

Senator SYMINGTON. How much over, do you think?

Mr. EDGAR F. KAISER. Do not ask. Let me make the figures.

The CHAIRMAN. Mr. Kaiser, you referred to \$1,200,000 here. The last testimony of the Air Force was that it was \$1,337,000, some figure like that.

Mr. EDGAR F. KAISER. No, it was not.

The CHAIRMAN. I beg your pardon but it was. That was the testimony of the Air Force. Mr. Henry Kaiser in testifying here said that a great many false statements had been made. The only witnesses were former Secretary McCone and the Air Force officials. What Mr. Henry Kaiser has done is virtually accuse them of committing perjury before this committee.

Mr. HENRY J. KAISER. I have not.

The CHAIRMAN. You said they have made false statements.

Mr. HENRY J. KAISER. I did not say they did.

Mr. EDGAR F. KAISER. False impressions is what we said were created.

Mr. HENRY J. KAISER. Because you did not give all the testimony.

The CHAIRMAN. We did not give all the testimony?

Mr. HENRY J. KAISER. That is right.

Senator SYMINGTON. Mr. Kaiser, you do not mean that. You are talking to the chairman of the committee.

Mr. HENRY J. KAISER. No.

Senator SYMINGTON. What do you mean?

The CHAIRMAN. I have given no testimony here. We are out to get the truth. What I would like to have you tell is the truth. What I would like to have you tell is the truth. Now, sir, just proceed. I am trying to be courteous and nice to you.

Mr. HENRY J. KAISER. Senator, are you accusing me of being a liar?

The CHAIRMAN. No, sir; you said somebody is making false statements.

Mr. HENRY J. KAISER. I did not say false statements. You read the testimony. If you want to go into truthful statements I will be glad to cover them all with you—

The CHAIRMAN. I want all the facts.

Mr. HENRY J. KAISER (continuing). All your statements in the past, and all mine. And they will stand up.

The CHAIRMAN. I think mine will, too. So let us go on with the hearing. I want to be courteous and give you every fair chance.

Mr. HENRY J. KAISER. I do not want you to accuse me of making false statements.

The CHAIRMAN. I know what you said here, certainly, if you had false impressions—

Mr. HENRY J. KAISER. What I said here is as clear as crystal and it is in writing.

Mr. EDGAR F. KAISER. Mr. Chairman, may I clear up this \$1,300,000?

The CHAIRMAN. Yes, sir.

Mr. EDGAR F. KAISER. If I read the transcript correctly, the \$1,300,000 is the Air Force auditor's estimate of what he thinks it will cost to complete. With all due respect to Mr. Solomon and his judgment, I do not think an Air Force auditor is an estimator of costs of completion. We have submitted detailed facts that seem obvious on the surface that he cannot be right. A conclusion was drawn and you drew it. You made the statement that the cost is \$1,300,000. That is not a right statement, Senator. That is an estimate, made by an Air Force auditor.

Senator SYMINGTON. Mr. Chairman, I would like to be clear on this. If any injustice is being done—can you not take the amount of money that is spent and divide it into the number of planes that you shipped and find a price?

Mr. EDGAR F. KAISER. No.

Senator SYMINGTON. You cannot do that?

Mr. EDGAR F. KAISER. No. It does not give you a fair answer. You see all the stuff is down the line.

Senator SYMINGTON. Later on your costs will come down, presumably?

Mr. EDGAR F. KAISER. Right.

Senator SYMINGTON. If your costs increased, and apparently there is a difference of opinion as to whether they will or will not increase, then it would be a very fair answer.

Mr. EDGAR F. KAISER. Our costs are coming down per plane.

Senator FLANDERS. Mr. Chairman?

The CHAIRMAN. Senator Flanders?

Senator FLANDERS. One of the elements in this situation, as I see it, I mentioned briefly in the previous hearings, and that was where you have costs of tooling, costs of developing manufacturing, costs of training workmen, there should be a heavy initial cost per plane, and there should be a continuing decreasing cost per plane as the number of planes delivered approaches the total. I think we have got to recognize that in this discussion, and if there is not, however, a decreasing cost per plane, as the total order approaches completion, there is something the matter. But we must not be surprised if the costs of the first planes are high. We must expect that the costs of the final planes will be very much lower.

Senator BYRD. I would like to ask a question.

The CHAIRMAN. Senator Byrd?

Senator BYRD. Would you be willing to accept future contracts on the basis of the cost of the Fairchild's?

Mr. EDGAR F. KAISER. No, sir.

Mr. HENRY J. KAISER. The 800?

Mr. EDGAR F. KAISER. What he is saying is at the same point of production. Yes.

Senator BYRD. In other words, you have had your preliminary experience of 2½ years. have you not?

Mr. EDGAR F. KAISER. The learning curve. We have to make it clear. If we build 800 airplanes, or more of this same basic type, I would say we would take them for less than their 260.

Mr. HENRY J. KAISER. Less than Fairchild, for 800.

Senator BYRD. Suppose there are 100 or 200?

Mr. HENRY J. KAISER. Then if you take them at the same price as Fairchild, Senator, you have to go back to their C-82 at the same time at the same stage, and it cost them about \$1,300,000 something, just by Air Force records. We have those records.

Senator BYRD. You have that. Both of these companies have had experience. Let us get beyond that. Some day you have to get these costs down to some reasonable figure. Let me ask you this: You say you will accept these contracts on a fixed amount?

Mr. HENRY J. KAISER. That is right.

Senator BYRD. Would you accept them, that fixed amount being the cost that it cost Fairchild?

Mr. HENRY J. KAISER. Based upon the learning curve of Fairchild. Based upon what their costs were as they came down that curve.

Senator BYRD. Do you not think 2½ years is long enough to waste public money to get the planes started? Rather, to have a reasonable cost?

Mr. EDGAR F. KAISER. We did not waste the public money.

Senator BYRD. Somebody had some heavy costs here. I do not know whether it was wasted. When is the time coming when you are going to get down to an efficiency basis?

Mr. HENRY J. KAISER. It is a learning curve that you go by. Every aircraft company goes by a learning curve.

Senator BYRD. These curves are very difficult to understand. How long will it take, with your experience, to get on an efficient, competitive basis?

Mr. EDGAR F. KAISER. Senator, he is giving you a good answer. You do not measure it in time. You measure it in numbers of airplanes. What we are saying to you is that we feel our operation is competitive with Fairchild on the same number of planes. You do not measure it in time.

Senator BYRD. How many planes have you built up to date?

Mr. EDGAR F. KAISER. We have delivered over 50. Fifty-nine, I think.

Senator BYRD. Are you asking for other contracts, other business?

Mr. EDGAR F. KAISER. No, we have not been, other than what we have now.

Senator BYRD. Have you been offered any other business?

Mr. EDGAR F. KAISER. Not for completed airplanes.

Senator BYRD. Do you expect to get any other business from the Government?

Mr. EDGAR F. KAISER. Yes, sir.

Senator BYRD. Why do you expect it?

Mr. EDGAR F. KAISER. That is a broad question. If we are talking about at Willow Run, because I think we are competitive at Willow Run, and because I think it is good for the Government to have that capacity and to have a trained force there both in manage-

ment and labor available to turn on, and not to have to wait 2 years to develop it.

Senator BYRD. How long will it be before you would be on a competitive basis with Fairchild?

Mr. EDGAR F. KAISER. I really think before we build the same number they have.

Senator BYRD. When? There must be some months or years.

Mr. EDGAR F. KAISER. I am not dodging your question. I am merely answering.

Senator BYRD. Give an approximate date of when you will be on it.

Mr. EDGAR F. KAISER. We say we are at the present time. Let's answer it that way.

Senator BYRD. I understood you to say that you were not at the present time, because you did not have this learning curve.

Mr. EDGAR F. KAISER. Senator, I am not doing a very good job of explaining to you. When you build 100 airplanes, they cost more per plane than when you build 800. What we are saying to you is that when we have built the same number of airplanes, we will build them at the same or lower costs than Fairchild, or, to put it the other way, we say that we are competitive with them at the point where we are today, in comparison to where they were.

Senator BYRD. How many planes has Fairchild built?

Mr. EDGAR F. KAISER. Over 800 of this basic type.

Senator BYRD. In other words, you will not be on a competitive basis until you have built 800? Is that it?

Mr. EDGAR F. KAISER. I just said I think we will be there ahead of them.

Senator BYRD. Could you give any month or any date any year, in the future, when you would be on a competitive basis?

Mr. EDGAR F. KAISER. We have a contract for only 159 C-119's. We will be phased out of the program completely.

Mr. HENRY J. KAISER. In how many months?

Mr. EDGAR F. KAISER. By January.

Senator BYRD. You expect to get other business, I assume.

Mr. EDGAR F. KAISER. There is a contract, a follow-on contract, but it is a subcontract to build the C-123, that Chase Aircraft holds the prime contract on.

Senator FLANDERS. Mr. Chairman?

The CHAIRMAN. Senator Flanders.

Senator FLANDERS. I would like to make some inquiries about the nature of these contracts. Is it in the contract that you entirely absorb the tooling and other costs in your 159?

Mr. EDGAR F. KAISER. Yes, sir.

Senator FLANDERS. So that all those costs are spread over 159 planes?

Mr. EDGAR F. KAISER. Yes, but I would like to go just one step further. On the comparison figures that you were given, at 71.4 airplanes, as submitted, the Air Force auditor at Willow Run wrote off all the tooling on the 71.4. He did not even give us the 159. That is the comparison.

Senator FLANDERS. That is the point that I am coming to. So that we have to take into account the writing off of the total amount of the total costs on the total planes, rather than on the state of the

affairs of producing the tenth plane, the 20th, the 50th, or whatever it may be.

Mr. EDGAR F. KAISER. That is right.

Mr. HENRY J. KAISER. Kaiser-Frazer's cost of \$1,200,000 per plane is based on a privately owned plant, with all of the tooling and all the plant rearrangement costs written off on a total of only 159 planes.

No one brought out the fact that, if Kaiser-Frazer built 800 or more of this basic type of aircraft, its costs would be \$260,000 or less. The Willow Run plant, in World War II, a second-source B-24 producer, was severely criticized for high costs and low production in the early part of the program—but once it started rolling, it was a high-volume producer, and the Air Force source books show its costs were under the prime producer.

The impression is also left that the costs of Fairchild-built planes, on which testimony was submitted at the hearings, are for the same plane that Kaiser-Frazer is building. Actually, the Fairchild costs, as reported by Mr. Mautner for 71.4, 159, and 412 planes, respectively, are all for C-119C's. Kaiser-Frazer, however, built only C-119F's. The C-119F is a different airplane than the C-119C.

Mr. ANTON. Could I interrupt?

Mr. HENRY J. KAISER. Yes.

Mr. ANTON. Could you tell me what model plane Fairchild is building now?

Mr. HENRY J. KAISER. F, after we went through the experiment with their tools. And their tools were 75 percent wrong, 50 percent of which had to be rebuilt. I will get into that latter.

Mr. ANTON. Would you please tell the committee what model at the present time Fairchild is building?

Mr. HENRY J. KAISER. F.

Mr. ANTON. The committee has in its files documents to show that the Fairchild Co. is at present building the G model.

Mr. HENRY J. KAISER. That is new to me. Is it new to you?

Mr. EDGAR F. KAISER. I do not think it has any bearing on the question.

Senator SYMINGTON. I think it has this bearing: If you are talking about changes in production cost, and you have done the changes in the costs for the F model and Fairchild has had the benefit of that and is now building the G model, that is pertinent.

Secondly, it also means that if they are making a new model with all the changes involved in it, the G-model for a price of around \$264,000, or whatever it is, around that figure, I would say that is pretty good manufacturing based on these reports.

Mr. HENRY J. KAISER. But you have to know how many they built, and what the changes were. Was there one change? Were there 10 changes? Or was it in the case of the C to the F?

This airplane was changed 30 percent.

Senator SYMINGTON. I would say the implication of your testimony is that you are building the C and they are building the F, that you made the changes in the F and they got the benefit of it.

If they are making the G they are making the changes in the G and you will get the advantages of it.

Mr. EDGAR F. KAISER. I think if you read it you will get that. He is not saying that.



Mr. HENRY J. KAISER. There were some 80 changes required to develop the F model, the major changes being different engines and a change from electrically actuated landing gear and control surfaces to a hydraulic system. Therefore, Mr. Mautner's cost comparisons are not on comparable planes.

The original award to Kaiser-Frazer contemplated building the C model. The change to the F model was ordered in January of 1951. Fairchild was responsible for furnishing Kaiser-Frazer the engineering information on the change from the C to the F. The F changes were received all during the time we were tooling and building the planes.

Complete engineering information for the F model was not received until a year after the time of the contract change. A number of the priming parts furnished Kaiser-Frazer by Fairchild were C-119C parts, and Kaiser-Frazer had to modify them when possible, to F parts.

You know enough about planes to know that when you have to go in to modify tooling that is incorrect and not furnished, you have more of a problem. That cost hasn't yet been represented.

In spite of all this, Kaiser-Frazer delivered to the Air Force the first C-119F only 1 month after the last engineering information was received and simultaneously with the completion of Fairchild's first production tryout F model.

Mr. ANTON. When was the first F model assembled at Kaiser-Frazer off the line?

Mr. EDGAR F. KAISER. What day was it off the line?

Mr. ANTON. What date did it come off the line, the first F model?

Mr. EDGAR F. KAISER. Before it was accepted?

Mr. ANTON. Yes, before it was accepted. The time you had the dedication ceremonies.

Mr. EDGAR F. KAISER. That was May 8.

Mr. ANTON. Are you sure it was May 8?

Mr. EDGAR F. KAISER. March 8.

Mr. ANTON. March 8 is when the first F model came off? In view of the fact that the first Fairchild F model came off their line in November of 1951, what is your comment as to the changes that Fairchild also had to make in going to the F model when your model came out in March 1952 and their F model came out in November 1951?

Mr. EDGAR F. KAISER. I don't understand your question at all. We are not claiming that Fairchild did not have to do the engineering and develop it and do that. We did not do that. He did that.

There is no claim here that we did all that. The claim is that we were building a different airplane, and the engineering was not available at the time, and we knew in general where the changes were going to be.

But that is difficult. In order to accelerate the program you start building the tools, the C tools. I don't quite understand your question.

Mr. RHODES. You were talking about absorption of costs for a new model. At least I understood you to say that you were talking about absorption of costs for a new model.

Mr. HENRY J. KAISER. Changes in tooling, incorrect tooling.

Mr. RHODES. Yet, I believe the burden of Mr. Anton's statement is that the Fairchild people had some months earlier, in November, as a

matter of fact, gone through all these things, completed the engineering changes and run their first model off.

Can you explain why it was so burdensome to you to come up with the F model? From your statement you indicate that you have taken the brunt of the thing.

Mr. EDGAR F. KAISER. I just got through saying that. We did not claim we took the brunt of it. This is the point of the whole thing. We are not saying we developed the F. We say Fairchild did.

What we do say is that a lot of costs were submitted, Fairchild costs which were C costs and are compared to F costs. That is the point of this statement. Is it fair to compare a cost on a developed airplane without taking into consideration the initial airplane which was the C-82, and compare those, when we are trying to build an airplane, with 30 percent of the information not available?

That is my point. This is not a fair comparison.

Mr. RHODES. It occurs to me that you are just arguing for an arithmetical comparison of costs.

Mr. EDGAR F. KAISER. When I have been crucified by one and claim to have excessive costs, and wasteful? I have to argue for something.

Mr. RHODES. You are picking up the argument that the F model was exceedingly costly to you because you had some 30 percent of changes, at least I understood Mr. Henry Kaiser to say that.

Mr. HENRY J. KAISER. It says that here.

Mr. RHODES. In your statement you said that. But months earlier, in November, Fairchild had already gone through and produced its first F model.

I cannot see the burden of your argument that you are in trouble because you have to produce a new model—the F model—and go through with all these engineering changes.

Mr. EDGAR F. KAISER. I think this will bring it out.

Senator SYMINGTON. Mr. Chairman?

The CHAIRMAN. Senator Symington.

Senator SYMINGTON. If the committee could find out from the Fairchild Co. what they were paid per airplane on the first group of airplanes—I say group so there would be an average cost—it might be difficult to do with the cost per plane which it would not be if it were a fixed price—then compare that with the average cost of Fairchild, embracing the learner's curve which has been emphasized here, I think you would get a clearer picture with respect to this program.

And on that basis the Kaiser-Frazer interests might consider whether or not they would be willing to go on with the contract on a fixed price basis based on the number of airplanes.

Mr. EDGAR F. KAISER. Can we finish the statement? I think that will clear it up and we will not have to argue about these things.

Mr. ANTON. Under the technical assistance agreement that Kaiser-Frazer had with Fairchild, Fairchild was to supply the major assemblies for the first 14 planes.

Is that not correct?

Mr. EDGAR F. KAISER. Yes.

Mr. ANTON. What percentage of parts of this first plane, the "F" model which came off the line in March 1952, were supplied by Fairchild?

Mr. EDGAR F. KAISER. In the first place, the parts we got were "C" parts, so we had to modify them if they did not make corrections. Are you clear that we got parts from Fairchild that were not "F" parts? We got both kinds. In some cases they made it and some cases they did not.

That is not a criticism of Fairchild. They were doing the best they could under the circumstances.

Mr. ANTON. You are not criticizing Fairchild at this point, are you?

Mr. EDGAR F. KAISER. Don't try to get an all-inclusive statement in. Are you trying to get the facts or crucify me?

I am not going on the record that they did not—

Mr. ANTON. Please understand me.

Mr. EDGAR F. KAISER. That is it exactly. When you try a question like that you are trying to get me to say that I don't criticize them and I do, and I very definitely have done it. That is a trap question.

Mr. ANTON. I believe that the question that you—

Mr. EDGAR F. KAISER. Are you trying to get the facts?

Mr. ANTON. The facts, yes.

Mr. EDGAR F. KAISER. Let's get at them.

Mr. ANTON. In this particular instance, I believe the committee would be interested in hearing the testimony of Fairchild on this point.

Mr. EDGAR F. KAISER. I think that we should finish our statement which explains what we are talking about.

Mr. ANTON. Not at this point, but later on.

Mr. HENRY J. KAISER. The committee, in the absence of information to the contrary, when hearing the testimony given by Mr. Mautner, must have assumed that the Fairchild cost information he submitted was for the same plane that Kaiser-Frazer was building. This was not the fact. The majority of the cost information he submitted was based on recorded costs on the model C-119C, whereas Kaiser-Frazer builds the C-119F.

When Mr. Mautner was giving his testimony, it was not stated that Fairchild had built approximately 200 C-82s prior to starting C-119s. The C-82 is a predecessor of the C-119. We do not know how much of the original cost of plant rearrangement, tooling and fixtures, etc., paid for by the Government and used by Fairchild on the C-82 was applicable and used, free of charge, on Fairchild's C-119 program.

We do know that the C-82, though a smaller plane, cost Fairchild substantially more to build than the C-119, undoubtedly because Fairchild was then at an earlier point in its learning curve, and still amortizing preproduction expense and tooling.

The Air Force reported on September 29, 1952—this is an Air Force report—

Mr. ANTON. Is this an official report?

Mr. HENRY J. KAISER. It is an Air Force report.

Mr. ANTON. Is it an official report?

Mr. HENRY J. KAISER. I don't know what official is. It was furnished by the Air Force to anyone and everyone.

Mr. ANTON. To anyone and everyone? In a press release?

Mr. EDGAR F. KAISER. I think it was. We took it from the press release. They furnished it.

Senator FLANDERS. I think we should have the source of this report in our record.

Mr. HENRY J. KAISER. We will furnish that.  
The CHAIRMAN. Will you furnish that for the record?  
Mr. HENRY J. KAISER. Yes, sir.  
(The statement is as follows:)

DEPARTMENT OF DEFENSE,  
OFFICE OF PUBLIC INFORMATION,  
Washington 25, D. C., October 6, 1952.

Mr. H. W. CLOKE,  
Washington, D. C.

DEAR WALT: Enclosed are two answers to inquiries on the subject of Kaiser-Frazer and Fairchild C-119 costs. Neither answer was used, as far as I know, until September 29.

The answer dated September 23 was prepared from information given earlier to the Hébert Subcommittee, Committee on Armed Services, House of Representatives.

Sincerely,

DEWITT R. SEARLES,  
Lieutenant Colonel, USAF,  
Chief, Air Force Desk, Press Branch.

SEPTEMBER 23, 1952.

*In Answer to Inquiries:*

An Air Force contract with Kaiser-Frazer Corp. for production of Fairchild C-119 aircraft at Willow Run is still in effect, and there is no plan that it be canceled. This contract, for 200 aircraft, dates from December 1950 when a letter contract was awarded. A definitive contract was entered into in May 1952.

The contract covered \$137,673,000 as estimated airframe cost, \$42,764,000, for special tooling, plant rearrangement, portable tools, spare parts, engineering changes, no-fee items, etc. Total was \$180,437,000. Unit airframe cost was \$683,365.

In the spring, 1952, as a result of the stretchout in aircraft programing, a change in requirements for the C-119s, and plans to phase the Chase C-123 into production at the Willow Run plant, 41 C-119s were transferred from Kaiser to Fairchild. A supplemental agreement covering this change is being negotiated.

Substantial savings on C-123 production at Willow Run are expected to result from experience gained in the C-119 work. Many starting costs will not be reincurred, and much of the usual expense of engineering, training a labor force, and adopting production methods to the making of new planes will be saved.

SEPTEMBER 29, 1952.

*In answer to inquiry as to comparison of Fairchild and Kaiser C-119 costs:*

The Fairchild and Kaiser C-119 prices are at present not comparable. Fairchild has produced this airplane and a predecessor airplane, the C-82, over a number of years in substantial quantity. A large portion of Fairchild's starting costs on the C-119 were incurred in the production of the C-82 during and following World War II. The balance has been absorbed in quantity production of the aircraft. In addition, Fairchild's production bears a relatively high ratio to its capacity.

Fairchild's average current unit price for airframe has been recently reduced to \$260,000.

The two companies are at a completely unrelated stage of production and costs. Kaiser prices could be compared with the Fairchild price only if Fairchild were also starting production, producing at a relatively small percentage of its plant capacity, and were affording facilities for greater expansion in the event of a further emergency as is the case with Willow Run. The Kaiser price cannot be, in any way, comparable to the Fairchild price until Kaiser has acquired a production history matching Fairchild's. Kaiser is at about the same stage in its overall program as was Fairchild when 5 years ago it had a unit price in excess of \$650,000 on the C-82. The last C-119's produced by Kaiser under its present contract will be considerably closer to Fairchild's current price than will be the first ones. Willow Run will then follow with C-123 production. It will not be until at least the end of C-123 production, under the existing contract, that anything like a comparable price will be available. Only then will Kaiser have

absorbed the initial cost incident to establishing a new source of production in terms of tooling, establishing subcontracting sources, production engineering, building a labor force and all the other customary expenses which Fairchild has long since absorbed under its contracts.

The difference between the Fairchild and Kaiser price represents the normal experience when it becomes necessary to expand aircraft production capacity to meet both current requirements for growth and to be prepared for sudden abnormal demands on industry.

Mr. HENRY J. KAISER. This is what it says:

Kaiser is at about the same stage in its overall program as was Fairchild when 5 years ago it had a unit price in excess of \$650,000 on the C-82.

The C-82 was the same basis type transport plane as the C-119, but the C-119 airframe weight is approximately 40 percent heavier than the C-82.

Adjusted for the difference in weight and the drop in the purchasing power of the manufacturers' dollar, Fairchild's unit price in present-day dollars would be approximately \$1,372,000. Obviously, no fair comparison could be attempted without also having this information.

Mr. ANTON. Mr. Kaiser, the information has been supplied by the Air Force. According to this schedule, in September 1947, the date about which you are speaking, the cost of the C-82 was \$256,934. Taking that figure and applying a 40-percent weight differential as you have indicated here, the figure then reaches \$359,708.

Then, taking the inflationary cost also into consideration, and applying 50 percent, you come up with a figure of \$539,562.

Mr. EDGAR F. KAISER. I would like to ask you a question, Mr. Anton. I am not clear on just what you are saying.

Senator SYMINGTON. Would you let the counsel finish the question?

Mr. EDGAR F. KAISER. I beg your pardon. I thought he was.

Senator SYMINGTON. No.

Mr. ANTON. I would like your comment on these comparisons.

Mr. EDGAR F. KAISER. I would like to know if those costs are on 220, or how many. Is that the average cost on 220 C-82 planes? You said costs at that time.

Mr. ANTON. That is right.

Mr. EDGAR F. KAISER. If we are taking another plug point in the program that is not a comparison.

Mr. ANTON. That was the cost at that time.

Mr. EDGAR F. KAISER. Then that is not a fair comparison.

Mr. HENRY J. KAISER. It is obviously not, to bring that kind of a cost here. Either the Air Force is not right in its statement to the public, or you are not right.

Mr. ANTON. I said the cost at that time.

Mr. EDGAR F. KAISER. He qualified it.

Mr. HENRY J. KAISER. Why bring it in?

Mr. EDGAR F. KAISER. When he is doing that, he is not comparing apples and apples.

Mr. ANTON. That is right. The reason I do that is this: The committee has had the Department of Labor prepare what this plane would have cost, taking into consideration the indices as prepared over the years, and taking into consideration all, not just a point at some place like September 1947, but taking all of the figures into consideration.

At this point we would like to insert this information into the record to indicate what has been done, in order not to delay this hearing. It is quite a lengthy explanation.

Mr. EDGAR F. KAISER. I would like to see that after it goes into the transcript, make an analysis and comment on it.

The CHAIRMAN. Certainly.

(The information above referred to is as follows:)

FAIRCHILD AIRCRAFT DIVISION, FAIRCHILD ENGINE AND AIRPLANE CORP.—  
CONTRACT W33-038 AC-124

Exhibit A. Cost to the Government of (219) C-82 airplanes—Final prices at completion of contract

Schedule No.	Airplane manufacture	Item 1, 60 airplanes	
		Block 1 (10)	Block 2 (20)
	Labor hours.....	1,783,266.5	1,677,912.1
	Labor dollars.....	\$1,792,811.05	\$1,673,799.79
	Overhead.....	3,583,341.64	3,073,228.02
	Material.....	861,017.29	1,435,293.47
	Subcontract.....	181,679.01	1,004,084.15
	Flight test.....	87,877.78	114,833.98
1	Subtotal.....	6,496,726.77	7,301,238.41
1	Engineering and experimental.....	1,667,499.31	214,403.50
1	Tooling.....	8,200,519.05	774,140.97
	Preproduction.....	345,797.08	1,748.11
	Subtotal.....	16,710,542.21	8,291,588.99
	General and administrative.....	850,411.40	373,867.75
	Total costs.....	17,560,953.61	8,665,456.74
	Profit.....	1,108,955.36	779,891.10
	Selling price.....	18,675,918.97	9,445,347.84
	Average unit selling price.....	1,867,592.00	472,267.00
	Average unit production hours.....	178,326.7	83,896.6
	Unit airframe weight (pounds).....	21,021	21,185
	Dollars per airframe pound.....	\$83.84	\$22.29
	Hours per airframe pound.....	8.48	3.96

Schedule No.	Airplane manufacture	Item 1, 60 airplanes	
		Block 3 (15)	Block 4 (15)
	Labor hours.....	1,019,720.0	1,058,453.5
	Labor dollars.....	\$1,062,711.11	\$1,144,933.21
	Overhead.....	1,721,601.59	1,807,314.20
	Material.....	927,106.24	1,073,556.86
	Subcontract.....	623,377.42	716,402.91
	Flight test.....	88,221.36	58,562.47
1	Subtotal.....	4,423,020.72	4,800,769.65
1	Engineering and experimental.....	181,348.51	205,966.16
1	Tooling.....	406,802.95	457,905.57
	Preproduction.....	1,502.84	
	Subtotal.....	4,992,675.02	5,464,641.37
	General and administrative.....	225,119.72	246,762.53
	Total costs.....	5,217,794.74	5,711,403.90
	Profit.....	469,601.52	514,748.62
	Selling price.....	5,687,396.26	6,226,152.52
	Average unit selling price.....	379,160.00	415,077.00
	Average unit production hours.....	67,981.3	70,563.6
	Unit airframe weight (pounds).....	23,597	23,939
	Dollars per airframe pound.....	\$16.07	\$17.34
	Hours per airframe pound.....	2.88	2.95

FAIRCHILD AIRCRAFT DIVISION, FAIRCHILD ENGINE AND AIRPLANE CORP.—  
CONTRACT W33-038 AC-124—Continued

Exhibit A. Cost to the Government of (219) C-82 airplanes—Final prices at completion of contract—Continued

Schedule No.	Airplane manufacture	Item 2, 40 airplanes		
		Block 5 (15)	Block 6 (15)	Block 7 (10) of (15)
1	Labor hours.....	883,626.7	716,641.8	418,935.0
	Labor dollars.....	\$958,208.00	\$821,909.98	\$493,089.73
	Overhead.....	1,433,875.03	1,230,539.15	754,469.48
	Material.....	912,133.40	881,191.43	596,880.32
	Subcontract.....	664,908.83	789,996.20	503,627.11
	Flight test.....	41,668.82	44,988.90	28,955.06
	Subtotal.....	4,010,794.98	3,768,625.66	2,377,021.70
	Engineering and experimental.....	179,133.71	186,902.25	147,432.90
	Tooling.....	419,877.41	408,595.39	201,027.77
	Preproduction.....			
	Subtotal.....	4,609,806.10	4,364,123.30	2,725,482.37
1	General and administrative.....	207,856.16	199,692.20	136,207.47
	Total costs.....	4,817,662.26	4,563,815.50	2,861,689.84
	Profit.....	433,589.60	410,743.39	257,432.12
	Selling price.....	5,251,251.86	4,974,558.89	3,119,121.96
	Average unit selling price.....	360,083.00	331,637.00	311,912.00
	Average unit production hours.....	58,908.4	47,776.1	41,893.5
	Unit airframe weight (pounds).....	23,932	24,252	24,282
	Dollars per airframe pound.....	\$14.63	\$13.67	\$12.85
	Hours per airframe pound.....	2.46	1.97	1.73
Schedule No.	Airplane manufacture	Item 3, 49 airplanes—blocks 7, 8, 9, and 10 (5, 15, 15, 14)	Item 4	
			30 airplanes—blocks 11 and 12 (15), (15)	20 airplanes—block 13 (20)
1	Labor hours.....	2,017,579.1	923,146.2	563,569.3
	Labor dollars.....	\$2,491,533.76	\$1,172,609.65	\$715,745.00
	Overhead.....	3,911,455.07	1,735,462.37	1,073,526.74
	Material.....	3,022,848.77	2,168,955.15	1,182,167.69
	Subcontract.....	2,316,725.12	937,620.62	584,146.32
	Flight test.....	131,543.93	89,098.85	66,247.96
	Subtotal.....	11,874,106.65	6,103,746.64	3,621,833.71
	Engineering and experimental.....	564,947.19	274,863.56	139,118.37
	Tooling.....	845,059.01	263,411.43	83,223.86
	Preproduction.....			
	Subtotal.....	13,284,112.85	6,642,021.63	3,844,175.94
1	General and administrative.....	662,636.62	365,450.42	212,339.48
	Total costs.....	13,946,749.47	7,007,472.05	4,056,515.42
	Profit.....	1,246,385.17	700,539.38	407,235.72
	Selling price.....	15,193,134.64	7,708,011.43	4,463,751.14
	Average unit selling price.....	310,064.00	258,034.00	223,188.00
	Average unit production hours.....	41,175.1	30,771.5	28,178.5
	Unit airframe weight (pounds).....	22,987	23,076	23,076
	Dollars per airframe (pound).....	\$13.49	\$11.13	\$9.67
	Hours per airframe (pound).....	1.79	1.33	1.22

FAIRCHILD AIRCRAFT DIVISION, FAIRCHILD ENGINE AND AIRPLANE CORP.—  
CONTRACT W33-038 AC-124—Continued

Exhibit A. Cost to the Government of (219) C-82 airplanes—Final prices at completion of contract—Continued

Schedule No.	Airplane manufacture	Item 4A	
		20 airplanes— Block 14 (20)	219 airplanes— Total (219)
	Labor hours.....	682,676.9	11,745,527.1
	Labor dollars.....	\$870,414.62	\$13,197,766.80
	Overhead.....	1,305,632.83	21,630,446.12
	Material.....	1,054,868.74	14,106,021.36
	Subcontract.....	479,200.00	8,801,767.69
	Flight test.....	56,000.00	807,999.11
1	Subtotal.....	3,766,116.19	58,544,001.08
1	Engineering and experimental.....	100,408.33	3,842,083.83
1	Tooling.....	70,028.18	12,136,591.69
	Preproduction.....		349,046.03
	Subtotal.....	3,942,552.75	74,871,722.53
	General and administrative.....	216,841.91	3,703,185.66
	Total costs.....	4,159,394.66	78,574,908.19
	Profit.....	415,933.46	6,745,065.44
	Selling price.....	4,575,328.12	85,319,973.63
	Average unit selling price.....	228,766.00	389,589.00
	Average unit production hours.....	34,133.8	53,632.5
	Unit airframe weight (pounds).....	23,018	23,073
	Dollars per airframe pound.....	\$9.94	\$16.89
	Hours per airframe pound.....	1.48	2.32

SCHEDULE 1. Cost to the Government of (219) C-82 airplanes—Detail of flight test, engineering and experimental and tooling

	Item 1, 60 airplanes	
	Block 1 (10)	Block 2 (20)
Flight test:		
Labor hours.....	26,932.9	28,621.5
Labor dollars.....	\$29,087.55	\$37,780.38
Manufacturing overhead.....	53,966.96	59,828.50
Material.....	4,833.27	17,226.10
Total.....	87,877.78	114,833.98
Engineering and experimental:		
Experimental labor, hours.....	37,362.2	5,281.6
Engineering labor, hours.....	466,845.0	45,630.5
Experimental labor, dollars.....	\$43,899.04	\$7,077.30
Engineering labor, dollars.....	670,988.90	64,339.05
Manufacturing overhead.....	71,522.49	11,366.57
Engineering overhead.....	920,316.50	81,925.06
Material.....	59,306.72	49,112.14
Subcontract.....	1,466.06	643.38
Total.....	1,667,499.31	214,463.50
Tooling:		
Labor hours.....	1,003,099.2	168,317.0
Labor dollars.....	\$1,123,471.11	\$222,178.46
Manufacturing overhead.....	2,140,335.47	388,618.77
Material.....	410,026.95	23,998.37
Subcontract.....	4,626,686.52	139,345.37
Total.....	8,200,519.05	774,140.97

NOTE.—Totals by blocks for flight test, engineering and experimental and tooling are actual. The breakdown of these totals into labor hours, labor dollars, overhead, material and subcontract are estimates.



FAIRCHILD AIRCRAFT DIVISION, FAIRCHILD ENGINE AND AIRPLANE CORP.—  
CONTRACT W33-038 AC-124—Continued

SCHEDULE 1. Cost of the Government of (219) C-82 airplanes—Detail of flight test,  
engineering and experimental and tooling—Continued

	Item 1, 60 airplanes		
	Block 3 (15)	Block 4 (15)	
Flight test:			
Labor hours.....	21,988.5	14,596.3	
Labor dollars.....			
Manufacturing overhead.....	\$29,024.83	\$19,267.05	
Material.....	45,963.33	30,511.05	
	13,233.20	8,784.37	
Total.....	88,221.36	58,562.47	
Engineering and experimental:			
Experimental labor hours.....	3,973.5	5,072.3	
Engineering labor hours.....	34,329.5	43,822.6	
Experimental labor dollars.....			
Engineering labor dollars.....	\$5,324.60	\$6,796.88	
Manufacturing overhead.....	48,404.55	61,789.84	
Engineering overhead.....	8,551.47	10,916.21	
Material.....	61,635.13	78,679.07	
Subcontract.....	36,948.81	47,166.25	
	484.05	617.90	
Total.....	161,348.51	205,966.15	
Tooling:			
Labor hours.....	88,448.8	99,559.8	
Labor dollars.....			
Manufacturing overhead.....	\$116,752.46	\$131,418.90	
Material.....	204,215.08	229,868.60	
Subcontract.....	12,610.89	14,195.07	
	73,224.53	82,423.00	
Total.....	406,802.95	457,905.57	

	Item 2, 40 airplanes		
	Block 5 (15)	Block 6 (15)	Block 7 (10 of 15)
Flight test:			
Labor hours.....	10,385.6	11,213.6	7,216.8
Labor dollars.....	\$13,709.04	\$14,801.35	\$9,526.21
Manufacturing overhead.....	21,709.46	23,439.22	15,085.59
Material.....	6,250.32	6,748.33	4,343.26
Total.....	41,668.82	44,988.90	28,055.06
Engineering and experimental:			
Experimental labor hours.....	4,411.5	4,602.8	3,630.8
Engineering labor hours.....	38,113.6	39,766.4	31,368.7
Experimental labor dollars.....	\$5,911.41	\$6,167.77	\$4,865.29
Engineering labor dollars.....	53,740.11	56,070.68	44,229.87
Manufacturing overhead.....	9,494.09	9,905.82	7,813.94
Engineering overhead.....	68,429.08	71,396.66	56,319.37
Material.....	41,021.62	42,800.62	33,762.13
Subcontract.....	537.40	560.70	442.30
Total.....	179,133.71	186,902.25	147,432.90
Tooling:			
Labor hours.....	91,291.5	88,838.5	43,708.3
Labor dollars.....	\$120,504.82	\$117,266.88	\$57,694.97
Manufacturing overhead.....	210,778.46	205,114.89	100,915.94
Material.....	13,016.20	12,666.46	0,231.86
Subcontract.....	75,577.93	73,547.16	36,185.00
Total.....	419,877.41	408,595.39	201,027.77

NOTE.—Totals, by blocks, for flight test, engineering, and experimental and tooling are actual. The breakdown of these totals into labor hours, labor dollars, overhead, material, and subcontract are estimates.

FAIRCHILD AIRCRAFT DIVISION, FAIRCHILD ENGINE AND AIRPLANE CORP.—  
CONTRACT W33-038 AC-124—Continued

SCHEDULE 1. Cost to the Government of (219) C-82 airplanes—Detail of flight test,  
engineering and experimental and tooling—Continued

	Item 3, 49 airplanes, blocks 7, 8, 9, and 10 (6, 15, 15, 14)	Item 4	
		30 airplanes, blocks 11 and 12 (15), (15)	20 airplanes, block 13 (20)
Flight test:			
Labor hours.....	32,786.3	22,207.2	16,511.8
Labor dollars.....	\$43,277.95	\$29,313.52	\$21,795.58
Manufacturing overhead.....	68,534.39	46,420.50	34,515.19
Material.....	19,731.59	13,364.83	9,937.19
Total.....	131,543.93	89,098.85	66,247.96
Engineering and experimental:			
Experimental labor hours.....	13,912.9	6,769.0	3,426.1
Engineering labor hours.....	120,201.5	58,481.6	29,599.7
Experimental labor dollars.....	\$18,643.20	\$9,070.50	\$4,590.91
Engineering labor dollars.....	169,484.16	82,459.07	41,735.51
Manufacturing overhead.....	29,942.20	14,567.77	7,373.27
Engineering overhead.....	215,809.83	104,907.88	53,143.22
Material.....	129,372.91	62,943.76	31,858.11
Subcontract.....	1,694.83	824.58	417.35
Total.....	564,947.19	274,863.56	139,118.37
Tooling:			
Labor hours.....	183,736.3	57,272.0	18,094.9
Labor dollars.....	\$242,531.94	\$75,599.08	\$23,885.25
Manufacturing overhead.....	424,219.62	132,232.54	41,778.38
Material.....	26,196.83	8,165.75	2,579.94
Subcontract.....	152,110.62	47,414.06	14,980.29
Total.....	845,059.01	263,411.43	83,223.86

	Item 4A	
	20 airplanes— Block 14 (20)	219 airplanes— total (219)
Flight test:		
Labor hours.....	13,957.8	206,418.3
Labor dollars.....	\$18,424.00	\$266,007.46
Manufacturing overhead.....	29,176.00	429,120.19
Material.....	8,400.00	112,871.46
Total.....	56,000.00	807,999.11
Engineering and experimental:		
Experimental labor hours.....	2,472.7	90,915.4
Engineering labor hours.....	21,363.5	919,522.6
Experimental labor dollars.....	\$3,313.48	\$115,660.34
Engineering labor dollars.....	30,122.51	1,223,364.25
Manufacturing overhead.....	5,321.64	186,775.47
Engineering overhead.....	38,356.00	1,751,007.80
Material.....	22,993.52	557,286.59
Subcontract.....	301.23	7,989.38
Total.....	100,408.38	3,842,083.83
Tooling:		
Labor hours.....	10,530.4	1,858,896.7
Labor dollars.....	\$21,820.09	\$2,253,123.95
Manufacturing overhead.....	38,166.15	4,116,243.90
Material.....	2,356.87	532,044.19
Subcontract.....	13,685.07	5,235,179.55
Total.....	76,028.18	12,136,591.59

NOTE.—Totals, by blocks, for flight test, engineering, and experimental and tooling are actual. The breakdown of these totals into labor hours, labor dollars, overhead, material, and subcontract are estimates.

FAIRCHILD AIRCRAFT DIVISION, FAIRCHILD ENGINE & AIRPLANE CORP.  
Total cost to the Government of 219 model C-82 airplanes, plus 2 experimental model XC-82 airplanes and plant facilities, adjusted by weight  
to compare with model C-119 airplanes

	1940	1941	1942	1943	1944	1945	1946	1947	1948	Total
<b>Facilities:</b> Contract W535 ac-17015 Dated Nov. 19, 1940, covering construction of 463,000 square feet of original airport plant, including machinery and equipment. Total contract amount, \$8,370,770.61. Contract W38-088 ac-37 Dated Sept. 29, 1943, covering construction of 212,000 square feet of original airport plant, including additional machinery and equipment. Total contract amount, \$4,601,246.50.	\$51,430.54	\$1,153,506.04	\$2,258,452.71	\$501,673.52	\$583,052.22	\$761,882.50	\$252,460.84	\$3,493.12		\$5,890,981.59
<b>Supplies:</b> Contract W35 ac-30435 Dated July 25, 1942, for a quantity of 3 XC-82 airplanes (1 static and 2 flight articles). The first flight article flew on Sept. 10, 1944. The second flight article, partially completed, later transferred to contract W38-088 ac-124. Contract W38-088 ac-124 Dated Sept. 11, 1943, for an initial quantity of 100 model C-82 airplanes, later increased to a total of 219 articles. The last airplane under this contract was delivered Oct. 18, 1948.										
Subtotal	31,430.54	1,153,506.04	2,703,511.35	3,703,589.85	10,901,894.33	24,497,457.53	30,627,935.38	19,893,025.00	7,904,665.57	101,422,018.59
Add weight factor on airplanes of 25 percent (difference between C-82 and C-119 weights).	1.44	1.44	1.44	1.44	1.44	1.42	1.41	1.35	1.24	1.24
Subtotal	31,430.54	1,153,506.04	2,804,776.01	4,418,127.32	12,764,198.96	30,234,082.54	35,216,094.01	24,865,407.97	9,880,831.96	124,373,455.35
Add Bureau of Labor Statistics factor for period of performance.	13,829.44	509,742.66	1,294,101.44	1,943,976.02	5,616,247.54	12,698,314.67	15,663,598.54	8,702,892.79	2,371,399.67	48,759,102.77
Grand total										173,132,558.12

1 Percent.

DEPARTMENT OF THE AIR FORCE,  
OFFICE OF THE GENERAL COUNSEL,  
Washington, March 31, 1953.

Following is a list of amounts of metals used in the C-82 and C-119 airframes:

	Pounds	Percent
<b>C-82:</b>		
Carbon steel.....	271	0.865
Alloy steel and stainless steel combined.....	5,698	18.179
Brass and copper.....	228	.727
Foundry products, grey iron castings.....	13	.041
Aluminum.....	25,135	80.188
Total.....	31,344	100.000
<b>C-119:</b>		
Carbon steel.....	160	.459
Alloy steel.....	2,236	6.418
Stainless steel.....	943	2.797
Brass.....	68	.195
Copper.....	401	1.151
Foundry products.....	8	.023
Aluminum.....	31,026	89.047
Total.....	34,842	100.000

DEPARTMENT OF LABOR,  
BUREAU OF LABOR STATISTICS,  
Washington 25, D. C., April 16, 1953.

Memorandum  
To: Mr. Harold M. Devlin.  
From: Edward D. Hollander.  
Subject: Prices of aircraft materials and labor.

Following our discussion, I asked Mr. Eaton to prepare rough indexes of the changes in the prices of materials and labor entering into the manufacture of airframes. Results of his work are described in the attached memorandum from him, which I am transmitting in its entirety.

You will notice that this work has been done with great care and in as much detail as the information available to you, and the price information in our files, would permit. Under the circumstances I have no apology; on the contrary, I think it is a very good job. Nevertheless I must caution you that these are approximations only and must be used with care. For example, it would be possible to conclude that the prices of aircraft had risen faster or slower than the materials and labor cost only if there was a wide discrepancy. In other words, even moderate differences might not be conclusive.

If there is any further explanation you need, I suggest you get in touch with Mr. Eaton directly on extension 1144 at the Department of Labor.

OFFICE MEMORANDUM

APRIL 14, 1953.

To: Edward D. Hollander.  
From: E. I. Eaton.  
Subject: Aircraft material prices.

The attached price and wage indexes have been prepared in response to the request of Mr. Devlin of the Senate Preparedness Committee. Although there are limitations on the accuracy of these indexes, as outlined below, it is my personal opinion that the price data are as good as could possibly be obtained without undertaking a major research project. The data on average hourly earnings are the official series of the Bureau; they are obtained by dividing the total production or nonsupervisory worker payroll by the total comparable man-hours on an annual basis.

The most important limitations on the price data are:

(1) The quality of the data is considerably higher after 1947 than in the period 1943-46; this is due to the revision of the wholesale price index with data starting in January 1947. We also have considerably more data, particularly for fabricated products, in 1947 and later years.

(2) All price data used in this work are f. o. b. mill or producing point quotations. To the extent that delivered prices have moved differently than mill prices, the indexes will be incorrect. This difference in movement, it should be noted can arise from three different causes: (a) A freight rate change of different magnitude or timing from a commodity price change; (b) purchase of requirements from different mills located far apart; (c) purchases from local sources rather than directly from mills (i. e., warehouses rather than direct from mills in the case of steel).

(3) The price quotations used in this index are for simple forms of the basic metal (i. e., ingot copper or aluminum). Since it is likely that aircraft manufacturers purchase relatively highly fabricated forms of metal—which can move differently from the basic metals because of labor and overhead costs—the indexes may not give an accurate picture of the general movement. Appendix B is presented to throw some light on this point. This appendix shows the comparative price movements for individual commodities in the period under consideration; since these vary in degree of fabrication it is possible to obtain some evaluation of the effects of fabrication on the price movement.

I have not attempted to combine the price and wage data into a single index. This can be done, fairly simply, by assigning relative importances to the price index and to the wage index, but we have no basis for such an assignment.

The price indexes were derived by the following method:

(a) All available price series by type of product (carbon steel, aluminum, etc.) were combined into a single product index. This combination was done on the basis of the weights used in the revised index (1947 sales of each commodity). The combining was done separately for the two time periods—1947 forward and 1943–46—and then tied together on the basis of the January 1947 ratios. As indicated earlier, the data from 1947 forward are much more complete than the earlier information. The result of this work was a series of five product indexes—carbon steel, alloy and stainless steel, gray iron castings, copper and brass, and aluminum. With the data available, it was not possible to develop separate indexes for alloy versus stainless steel or for copper versus brass.

(b) The quantity data by products, as supplied by Mr. Devlin, were converted to values on the basis of December 1952 prices. The actual prices used were: Carbon steel, 4.8 cents per pound; alloy and stainless steel, 33 cents per pound; copper and brass, 31 cents per pound; castings, 16 cents per pound; aluminum 20 cents per pound.

(c) The product indexes derived under (a) were combined on the basis of the values in (b) into 2 material indexes—1 for C-82 and 1 for C-119 planes. These indexes are dominated by the movement of alloy steel and aluminum. Price changes for copper and brass, gray iron castings, and carbon steel have almost no effect on the end products.

(d) The indexes derived in (c) were on the base 1947–49=100; as presented in appendix A, they have been converted to the base 1943=100.

Appendix A gives the annual average indexes for material by type of plane; it also shows the data on average hourly earnings in the aircraft and parts industry (excluding engines) converted to indexes on the base 1943=100. A break in the series in 1947 has been taken account of in computing the index for hourly earnings.

Appendix B gives the list of the commodities included in developing the product indexes and their annual average price relatives. You will note that the average indexes in the period 1943–46 may look peculiar in comparison with the individual items—for example, the item index for aluminum ingot is 94 whereas the product index is 93. This difference results from the method of calculation. The product indexes were computed separately for the two time periods and then tied together, while the item indexes independently were made into a continuous series for purposes of analysis. In other words, the items available in 1946 and earlier years were considered to be a sample of the items available after 1947.

Appendix C contains the absolute dollar data on hourly earnings.

APPENDIX A

*Special aircraft indexes for material and wages*

[1943=100]

Annual average	C-82 aircraft	C-119 aircraft	Average gross hourly earnings	Annual average	C-82 aircraft	C-119 aircraft	Average gross hourly earnings
1943.....	100	100	100	1948.....	116	112	137
1944.....	100	100	108	1949.....	124	119	144
1945.....	101	100	111	1950.....	129	124	151
1946.....	102	101	120	1951.....	140	134	164
1947.....	107	104	127	1952.....	144	137	173

APPENDIX B

Special aircraft material price indexes annual averages

[1947-49=100]

WPI code	Brief description	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952
Carbon steel:											
10-14-26	Hot rolled plates, 1/4 inch	72.2	73.2	77.4	86.1	90.0	100.7	109.2	117.3	123.0	125.5
10-14-31	L-beam 12 inches by 60 feet	67.5	67.5	67.5	74.5	84.4	102.9	112.7	121.1	128.4	131.1
10-14-33	Bars, hot-rolled, merchant	67.1	67.1	69.0	77.1	89.8	100.9	109.3	112.9	120.1	123.3
10-14-39	Bars, hot-rolled, 11-gage	69.0	69.0	70.1	79.5	93.2	100.7	106.1	113.7	122.7	126.2
10-14-42	Sheets, hot-rolled, 11-gage	69.5	69.5	71.7	76.1	89.3	100.8	109.9	115.4	122.5	124.8
10-14-46	Sheets, cold-rolled, 20-gage	81.6	81.6	81.6	86.9	91.8	100.7	107.6	114.9	120.4	122.6
10-14-47	Strip, cold-rolled, Nos. 6-8	75.7	75.7	75.7	82.0	90.7	100.8	108.5	113.5	125.9	131.0
10-14-51	Wire, annealed, Nos. 6-8	68.7	68.7	70.7	78.4	91.5	100.1	108.5	120.9	128.4	132.0
10-14-76	Combined index	72	72	74	80	90	101	109	116	123	126
Alloy and stainless steel:											
10-13-31	Slabs, stainless, No. 430	(1)	(1)	(1)	(1)	105.5	102.4	92.1	95.3	101.2	103.1
10-14-36	Bars, hot steel, 18-4-1 alloy	79.5	79.5	79.5	85.2	91.1	101.5	107.4	118.7	160.4	182.1
10-14-37	Bars, nickel-chrome alloy	66.7	68.1	68.7	73.0	88.9	100.1	111.0	115.4	121.7	124.8
10-14-38	Bars, hot-rolled, stainless, No. 501	(1)	(1)	(1)	(1)	96.6	96.9	110.6	127.1	146.6	149.5
10-14-52	Strip, cold-rolled stainless, No. 430	(1)	(1)	(1)	(1)	94.6	96.2	106.2	109.7	119.8	122.1
	Combined index	73	74	75	79	92	100	108	114	126	131
Gray iron castings:											
10-15-01	Gray iron castings	57.6	57.6	59.9	76.5	91.4	103.6	105.0	105.7	114.9	116.6
	Combined index	58	58	60	77	91	104	105	106	115	117
Copper and brass:											
10-22-06	Copper ingot, electrolytic	57.1	57.1	57.1	67.0	101.2	106.1	92.7	102.7	116.5	116.5
10-24-06	Red brass ingot (85-5-5-5)	(1)	(1)	(1)	(1)	101.7	107.4	90.9	107.1	149.8	143.4
10-25-11	Yellow-brass sheet	60.9	60.9	60.9	72.5	95.8	104.6	99.5	108.9	124.4	128.9
10-25-31	Copper-water tubing	(1)	(1)	(1)	(1)	96.9	104.1	98.9	108.4	121.8	129.3
10-26-01	Copper wire, bare, solid	57.6	57.6	57.6	70.8	101.9	104.4	93.7	97.0	112.0	115.5
	Combined index	60	60	60	71	99	105	97	106	122	125
Aluminum:											
10-22-01	Ingot, virgin	94.3	94.3	94.3	94.3	94.3	98.9	106.8	111.1	119.4	122.0
10-25-01	Sheet	(1)	(1)	(1)	(1)	94.7	99.4	105.9	109.6	118.1	120.6
10-25-06	Rod	(1)	(1)	(1)	(1)	87.9	102.4	109.8	113.3	121.8	124.3
	Combined index	93	93	93	93	93	100	107	111	119	122

1 Not available.

## APPENDIX C

*Annual average earnings in aircraft industry including frames, propellers, and parts excluding engines and parts*

	<i>Gross average hourly</i>		<i>Gross average hourly</i>
1943.....	\$1. 072	1948.....	\$1. 469
1944.....	1. 159	1949.....	1. 551
1945.....	1. 191	1950.....	1. 627
1946.....	1. 288	1951.....	1. 757
1947 <sup>1</sup> .....	1. 360	1952 <sup>2</sup> .....	1. 858
1947 <sup>1</sup> .....	1. 363		

<sup>1</sup> Break in series in 1947; adjusted in indexes in appendix A.

<sup>2</sup> Annual average not available; data are for June 1952.

Mr. HENRY J. KAISER. The impression also has been created that, under the Hagerstown and Willow Run contracts, the Air Force is buying only planes. This is true at Hagerstown, but at Willow Run, the Air Force is buying something far more important—additional productive aircraft capacity, ready for use in an emergency.

As former Secretary of Defense Lovett advised this Armed Services Committee on November 6, 1952:

\* \* \* our national mobilization policy has been the attainment of a broad base of production lines in being ready to turn out the items needed both in the quantity and quality demanded. Productive capacity, in the long run, is more important than production. Once a factory is tooled up and ready to produce the weapons of war, the factory itself then has become a much more significant weapon than the ones it produces.

Senator SYMINGTON. Could I interrupt? Production capacity is more important than production? I do not follow it. You cannot fly production capacity.

Mr. HENRY J. KAISER. Lovett said this, I did not say it:

Once a factory is tooled up and ready to produce the weapons of war, the factory itself then has become a much more significant weapon than the ones it produces.

Production is more important.

Senator SYMINGTON. You agree with that, Mr. Kaiser?

Mr. HENRY J. KAISER. I certainly do, 100 percent. And all my history agrees with it. I have done nothing but constantly increase production. As you know, in aluminum—you know enough about me in aluminum to know how hard I fought for the increase and got your support.

Senator SYMINGTON. I know that. I know I was very anxious for Edgar Kaiser not to go into the Air Force business in Willow Run because I thought it would hurt the Air Force and it begins to look to me as though it has hurt the Air Force. That is why I am very interested in these hearings.

Mr. HENRY J. KAISER. The impression was created that K-F costs had increased from an original estimate of some \$450,000, on a per plane basis, to \$1,300,000. The fact is that K-F never submitted any estimate of \$450,000. The fact is that the first K-F estimate submitted for the number of planes actually being built, on the stretched-out schedule actually being followed, is the estimate contained in the definitive contract for 159 planes. This estimate totaled \$179 million.

Our revised estimate, made in May of 1953, totals \$198 million, or an increase of approximately 10 percent. Normal increases in labor and material costs are responsible for a portion of this increase.



Mr. ANTON. On this first estimate that you are talking about in the definitive contract for 159 planes, estimating a total of \$179 million, when was this first estimate submitted or arrived at?

Mr. EDGAR F. KAISER. Let us define what you are saying. This says "the first estimate after the stretchout" and on the new basis. That estimate, I believe, was July of 1952.

Mr. ANTON. Would May 17, 1952, be more nearly the date when the contract was "definitized"?

A VOICE. For 200 airplanes.

Mr. ANTON. For 200 airplanes?

Mr. EDGAR F. KAISER. Right.

Mr. ANTON. This is not the first airplane.

Mr. EDGAR F. KAISER. The first one on this basis and incorporating all the changes on the F.

Mr. ANTON. This is not the first estimate on the C-119 plane, is that correct?

Mr. EDGAR F. KAISER. I know exactly what you are saying. Let's talk about it. What you are saying is, Didn't you make an estimate on 200 C-119's? Yes, we did. That was the C-119 contract basically, because we didn't have all the engineering information although it was supposed to be for an F, agreed. That is where we are going on it, but at that time we didn't know the stretchout schedule; we didn't have all the engineering information.

Mr. ANTON. Who supplied the information for the C model?

Mr. EDGAR F. KAISER. For the C model we got from two sources, really: Fairchild and from the Omaha package.

Mr. ANTON. What was your first estimate on the C package?

Mr. EDGAR F. KAISER. I think I quoted it this morning at—I gave it on a per plane basis to you about \$850,000. I don't think you can ever—that isn't true, to say that. I think our first estimate was made after—I know it was—after we knew it was an F, but without all the engineering information.

Mr. ANTON. The committee has on file here a record where you made an estimate last March 1952, at a hearing before the Armed Services Committee of the House. The estimate you quoted in March of 1952 was \$688,000, and this was under oath.

Do you affirm or disaffirm that estimate at this time?

Mr. EDGAR F. KAISER. I affirm it.

Mr. ANTON. That is basically different then than this estimate that you are speaking about at this point?

Mr. EDGAR F. KAISER. You and I are having trouble. This estimate is clearly defined as to what it was. That other is another estimate which we just talked about. You are trying to get it to look as though we are saying two different things.

Senator SYMINGTON. I am interested in this. When I first asked you what the estimate was, you said \$840,000. I thought that was based on the fact that your costs have increased. I thought apparently that was the lowest estimate that you have ever made. Now I understand that you have made an estimate of \$640,000 sometime later. Is it the same airplane?

Mr. EDGAR F. KAISER. I said very clearly to you, on the stretched-out basis, on the basis of 159 planes.

Senator SYMINGTON. It was \$850,000?

Mr. EDGAR F. KAISER. That is my best recollection.

Senator SYMINGTON. Then later it dropped?

Mr. EDGAR F. KAISER. No, sir.

Senator SYMINGTON. Is the May Day before the 850 or after 640?

Mr. EDGAR F. KAISER. The one he is talking about is before the 840 estimate.

Senator SYMINGTON. The one he is talking about is before the 850?

Mr. EDGAR F. KAISER. Right.

Senator SYMINGTON. I asked you for the first estimate you ever made. You told me it was \$850,000.

Mr. EDGAR F. KAISER. I think if you go back——

Senator SYMINGTON. Is that correct?

Mr. EDGAR F. KAISER. No, sir; it is not correct.

Senator SYMINGTON. Then I am wrong. I thought I asked you when was the first estimate you made on the plane and you told me it was on such and such a date and it was \$850,000.

Mr. EDGAR F. KAISER. Stuart, I was very clear in what I said to you. You know me well enough.

Senator SYMINGTON. We will check the record. I think you will find that is right. What I wanted to know is what your first estimate was, so we could compare your first estimate against the actual cost. And it was my understanding you said \$850,000. I never heard of any estimate that the Kaiser Co. made as low as \$640,000. That is why I was surprised. Let me ask you one more question.

Didn't you get quite a lot of engineering help from Fairchild?

Mr. EDGAR F. KAISER. Yes.

Senator SYMINGTON. Wouldn't that cut the cost of the airplane to you as against the cost to Fairchild?

Mr. EDGAR F. KAISER. Yes.

Senator SYMINGTON. Wouldn't under normal conditions, your figure be less?

Mr. EDGAR F. KAISER. I am glad you said that. Under normal conditions it would be.

Mr. HENRY J. KAISER. But conditions weren't normal. Seventy-five percent of the information was incorrect.

Senator SYMINGTON. Does that mean that they must have known the information, in order to build the plane themselves? Did they deliberately furnish you misinformation?

Mr. EDGAR F. KAISER. Let me clear it up. We are in trouble.

Mr. HENRY J. KAISER. We have a statement in this record that you will be able to read, stated by a Fairchild employee, that 75 percent of the tooling was incorrect, and we had to rebuild 50 percent of it.

Senator SYMINGTON. They were building the plane so they must have deliberately sent you the wrong tooling. Is that it? What is your opinion about it?

Mr. HENRY J. KAISER. My opinion is that they were careless and sloppy and that they had the tools on their floors and in some cases we had to go and photograph the tools.

Senator SYMINGTON. Let me ask the question again so we understand each other.

Mr. HENRY J. KAISER. Let me read it, please.

Senator SYMINGTON. The Fairchild Co., you said, furnished you 75 percent incorrect tooling information?

Mr. HENRY J. KAISER. I didn't say I said it. I said one of their employees who worked in our factory said it.

Senator SYMINGTON. Do you believe it is right?

Mr. HENRY J. KAISER. We have that statement.

Senator SYMINGTON. Do you believe it is right?

Mr. HENRY J. KAISER. I wouldn't know.

Senator SYMINGTON. Do you think they furnished you any incorrect information?

Mr. HENRY J. KAISER. What?

Senator SYMINGTON. Do you think they furnished you any incorrect tooling information?

Mr. EDGAR J. KAISER. Yes.

Senator SYMINGTON. Do you think inasmuch as they were making the plane that they did it deliberately or they did it carelessly?

Mr. HENRY J. KAISER. I don't accuse anybody of dishonesty.

Senator SYMINGTON. It seems to me you were making implications against the Fairchild Co.

Mr. EDGAR F. KAISER. I don't think they were sympathetic.

Mr. HENRY J. KAISER. They weren't sympathetic.

Mr. EDGAR F. KAISER. May I go back?

The CHAIRMAN. Mr. Kaiser, will you furnish the committee with the name of the person who furnished you that information?

Mr. HENRY J. KAISER. It is in the record. It is in our record, and more than one person.

(The statement referred to is as follows:)

The source of the information that the template package received under the technical assistance agreement with Fairchild was approximately 75 percent incorrect or incomplete is Mr. Bob Debenport. Mr. Debenport was assistant superintendent of Fairchild's tool manufacturing division during the period when Kaiser-Frazer was being furnished with templates under the technical assistance agreement. Mr. Debenport is now general superintendent of Kaiser-Frazer's tool manufacturing department.

A photostat of Mr. Debenport's signed statement dated June 18, 1953, is as follows:

JUNE 18, 1953.

To: T. F. Riddle.

From: B. Debenport.

Subject: C-119 tooling.

Following are some of the conditions which were encountered by Willys Motors, Inc., after receipt of the assistance package from Fairchild:

#### TEMPLATES

At the time that Willys received the contract for the C-119, I was employed by Fairchild as superintendent of the tool manufacturing division, having under my supervision the manufacturing of all templates and tooling. It was decided at Fairchild that I would not duplicate any tooling templates in the Fairchild facility due to the anticipated overload that would occur upon the receipt of engineering information on the C-160 which was then in the process of engineering.

The C-119 tooling templates were drawn from the storage crib and shipped to two vendors for duplication. One of the vendors was a tooling shop owned and operated by one Mike Fuller. The other was Mr. R. L. McIntyre. Mr. McIntyre had no shop at that time but set up a temporary operation in a vacant building. His equipment consisted of saw horses and boarding laid over same to create his work tables. Practically no experienced help was used by either shop in making the new templates. These templates were scribed from the tooling templates furnished by Fairchild and were not checked to the loft lines. They were, however, inspected by Fairchild template inspection.

The writer visited the above-mentioned shops and pointed out to the Fairchild chief tooling inspector that these templates were not complete or correct, and that

Willys Motors, Inc., would encounter serious trouble when they tried to build detail tools from the above-mentioned templates. The writer's reason for feeling this way was that most of the Fairchild templates were cut from the original lofts and all the information that was required was not scribed on the Willys templates, such as inside and outside mold lines were not identified; in many cases only one of the lines appeared. Hole sizes were not identified, and many of the tool holes not identified as same. However, in spite of my warning, the program was continued, and Willys received inspected, stamped templates that were supposedly up-to-date and correct, but were actually incomplete and incorrect.

In July of 1951, I left the Fairchild Aircraft Division to accept a position with Willys Motors, and I am presently general superintendent of the tool manufacturing department, and in the 23 months I have been here at Willow Run, my original concern has been verified. For example: of the entire template package, approximately 75 percent were proven incorrect or incomplete, and of that 75 percent, approximately 50 percent had to be remade. These discrepancies were discovered after the detail tools had been built and received, and often parts made, which necessitated recoordination, and tool and template rebuild. This condition was caused by the making of tools from templates received from Fairchild that were not correct.

It is the writer's opinion that the above-mentioned template discrepancies have cost Willys Motors months of production time, and have had a serious, detrimental effect on cost.

BOB DEBENPORT.

Mr. EDGAR F. KAISER. It is also in the record clearing up this \$688,000 and \$850,000. It is right here. You, Mr. Anton, apparently know it. You were talking about manufacturing costs without tooling. It is all right here. Let's get to it as we go along, shall we?

Mr. HENRY J. KAISER. The impression was created that K-F's costs per plane have been steadily increasing. The opposite is true. The facts are that the cost per plane has been steadily decreasing, in accordance with the industry learning curve.

Comparison of the Willow Run program with any other program is impossible without numerous and substantial adjustments. If comparisons are to be made, however, instead of comparing our production with Fairchild's production, a better basis for measuring our performance would be to compare it with the history of Ford's Willow Run operation during World War II, when Ford was operating the plant as a second source for Consolidated B-24 bombers.

Senator BYRD. This learning period, I haven't fully understood it yet. You furnished a picture here showing a man on skis about to jump off here. He takes two somersaults in the first part of it, called "the hazards of inexperience." Then he regains his balance and he coasts along under the title of "acquiring skill." Then he is firmly going along where there is smooth going. When do you reach the point of these different things? How long does it take on the "hazardous experience"?

Mr. HENRY J. KAISER. We can furnish you the aircraft source book which will give you that in detail.

Senator BYRD. I don't want that. I want you to tell me. You ought to know your own business.

Mr. HENRY J. KAISER. We rely on the experience of all aircraft manufacturers.

Senator BYRD. What is it?

Mr. HENRY J. KAISER. Senator——

Senator BYRD. Does this chart mean anything to you at all?

Mr. HENRY J. KAISER. It only illustrates what a learning curve is.

Senator BYRD. What is the learning period? You have a man who is turning somersaults here.

Mr. EDGAR F. KAISER. We are back to that same question; it is based on number of airplanes you build and not on time.

Senator BYRD. How many? Let's get down to something.

Mr. HENRY J. KAISER. Would you like to have us furnish—

Senator BYRD. You are a businessman. I would like to know. You can't be running this enormous business without some tie-in here. How many planes do you have to make before you turn a somersault here?

Mr. HENRY J. KAISER. I have engineers who can furnish you those curves and furnish them in great detail.

Senator BYRD. Aren't you here to testify?

Mr. HENRY J. KAISER. No, I can't testify.

Senator BYRD. You have a number of men here, associated with your company.

Mr. HENRY J. KAISER. I haven't engineers here who will give you learning curve data that I know of.

Senator BYRD. I think that is a very important part of this whole inquiry.

Mr. HENRY J. KAISER. We will get it for you.

Senator SYMINGTON. May I ask a question along the same line? Why is the skier going down hill and your costs going up hill?

Mr. EDGAR F. KAISER. The costs are not going up hill, per plane basis.

Senator BYRD. You justify this tremendous cost by reason of the fact that you had inexperience at that time, that you did not have experience, I mean, when you built the first plane?

Mr. HENRY J. KAISER. Call it experience. It is your experience with that plane in the numbers. The next page gives it to you in great detail.

Senator BYRD. It doesn't give it in great detail. That is something else. You can't make sense out of any of it.

Mr. HENRY J. KAISER. Senator, I can make sense for you if you will let me.

Senator BYRD. Answer my questions and I can understand it. It is a new subject to me and I like to ask questions, and I like the witness to answer the questions.

Mr. HENRY J. KAISER. I prefer Edgar to answer that question.

Senator BYRD. Let somebody answer it. I want to ask first how long does it take to get out of this first section here where you are turning these somersaults, which is known as the hazards of inexperience. How many planes have you got to build before you get out of that? If you can't put it in days or months, put it in planes.

Mr. EDGAR F. KAISER. Senator, that is a very difficult question, because you have to know what the conditions are under—

Senator BYRD. Base it on your past experience, then. What did you get this up for? You passed this around.

Mr. HENRY J. KAISER. We didn't get it up.

Senator BYRD. Somebody did.

Mr. HENRY J. KAISER. We furnished the learning curve.

Mr. EDGAR F. KAISER. I think the best answer is the chart that we prepared for you which shows that.

Senator BYRD. I can't make any sense out of the chart whatever.

Mr. EDGAR F. KAISER. I don't mean this chart.

Senator BYRD. I mean the other chart. I asked you a question and you ought to be able to answer it. How many planes have you got to make before you get out of the inexperience class?

Mr. EDGAR F. KAISER. If there are no changes on the airplane, and if you have a steady rate of performance, no changes on the airplane, I think we can give you an answer to that question and I would like to have a little time on it because you get into the greatest argument and everybody will have an opinion about it.

There is a standard industry learning curve.

Senator BYRD. My question, Mr. Kaiser—

Mr. EDGAR F. KAISER. I think we can develop it.

Senator BYRD. This seems to me a very important part of this inquiry, for the same plane Fairchild built at a much lower cost.

Mr. EDGAR F. KAISER. Not at the same point.

Senator BYRD. I understand that. I am trying to find out the point. Is that pertinent to this thing or not?

Mr. HENRY J. KAISER. Yes, it is. Very pertinent.

Senator BYRD. You ought to be prepared now to answer it. I presume you knew this was coming up. One purpose of the inquiry is to determine why you charged so much more for the same plane than Fairchild.

Mr. HENRY J. KAISER. If you give us some time we will do that for you and it won't take many hours.

Senator BYRD. If you haven't got it I will defer any further questions. I submit it is very important for you to give that.

Mr. HENRY J. KAISER. I think you are right. It is very important.

Senator BYRD. You have three classes on this chart. How many planes does it take before you get out of the class of hazards of inexperience? How many further planes will it take before you get into the class of acquiring skill? Then how many planes will it take to get into smooth going, whatever that means?

Mr. ANTON. Mr. Kaiser, what is the standard in the industry, percentagewise, on this learner's curve you are talking about?

Mr. EDGAR F. KAISER. About 80 percent.

Mr. ANTON. What percentage are you on right now? You had a chart up there and it went right along. It didn't seem to be curved down at all.

Mr. EDGAR F. KAISER. About 73%.

Mr. ANTON. You are on a 73 percent learning curve?

Mr. EDGAR F. KAISER. Right.

Senator BYRD. You will furnish this information in a way in which I can understand it—maybe I can't take it in—but so that an ordinary, intelligent person can understand?

Mr. EDGAR F. KAISER. I think you can understand it.

Senator SYMINGTON. Senator Byrd's inquiry is appropriate. From the facts developed by the committee staff there seems to be direct disagreement. That apparently is the whole problem. The committee staff and the committee feel, based on the record, that the learning curve, instead of straightening out and getting smooth, has been somersaulting up with respect to this plane.

Mr. EDGAR F. KAISER. Right.

Senator SYMINGTON. That is true or not true?

Mr. EDGAR F. KAISER. That is true.

Senator SYMINGTON. The records of this committee show that the costs are increasing. Isn't that correct, Counsel?

Mr. EDGAR F. KAISER. No.

Mr. ANTON. The testimony that was given by General Cook indicates that the Air Force has been amending this contract and increasing it.

Mr. EDGAR F. KAISER. Let me ask you: Are the costs per plane coming down? Costs per plane, our costs?

Mr. ANTON. Now that you have brought that question up, Mr. Kaiser, I feel it appropriate at this time to refer to the record. In the record of the testimony that the committee has taken, a letter from a Mr. Girard, who was a vice president in the Kaiser-Frazer Corp., asked in May for an additional \$10 million to be applied to the plane contract.

Does that indicate an increase or a decrease?

Mr. EDGAR F. KAISER. It isn't my privilege to ask you questions, but I would like to ask you if you would answer this one: Are the costs per airplane coming down or aren't they? You are just trying to show that the total contract price is increased. You know the conditions as well as I do. You and I spent hours on it. Has the cost per airplane—let me ask you this: Is the 50th airplane at Kaiser-Frazer cheaper than the 1st one?

Mr. ANTON. That is very true.

Mr. EDGAR F. KAISER. It is. Good. Is the 70th cheaper than the 50th?

Mr. ANTON. There is no question about the fact that the more planes, the more—

Mr. EDGAR F. KAISER. This committee thinks that you think that they have been going up.

The CHAIRMAN. Let's go on with the hearing. Do you have a question, Mr. Rhodes?

Mr. RHODES. Earlier in your statement you said it would be quite abnormal if by experience you didn't reduce the unit costs.

Mr. EDGAR F. KAISER. Right.

Mr. RHODES. It is a question of how much you reduce the unit costs. That is the principle that I think Senator Symington is getting at.

Senator SYMINGTON. That is right.

Mr. RHODES. That is the nub of the argument here.

Senator SYMINGTON. In other words, what is the learner curve as against what the learner curve was at Fairchild?

Mr. RHODES. And what happened to the total cost?

Mr. HENRY J. KAISER. You are on the right point right now.

The CHAIRMAN. Proceed.

Mr. HENRY J. KAISER. Committee members have already requested the Air Force to furnish this information, and the committee's judgment should be withheld until the information is furnished and evaluated. We believe that, when this information is furnished, it will show that Kaiser-Frazer's cost and production experience on the C-119 follows a pattern very similar to Ford's experience in World War II, even though Willow Run today is tooled by the Air Force for high production, but limited by the Air Force to low production.

Another measure of our performance might be to compare it with the performance of other second-source manufacturers who were

awarded contracts when we received ours, such as General Motors, producing the Republic F-84 at Kansas City; and Lockheed, producing the Boeing B-47 at Marietta. Committee members have asked the Air Force for this information, and the committee's judgment should be withheld until the information is furnished and evaluated of the point Senator Byrd is making. He wants to see something comparable. That is what we want you to do.

Any comparison, in order to be of value to this committee, must take into consideration the following factors:

- Type of aircraft being built;
- Conditions existing during the building period;
- Percentage of capacity of plant being used, in relation to total size of the plant;
- Percentage of capacity of plant being used in relation to the machine tool and tooling capacity;
- Changes in design of the aircraft occurring during the building period;
- Whether or not engineering information was available, with sufficient lead time to provide proper planning;
- Adjustments for actual differences in labor rates and material costs as between areas; and
- Adjustments due to increases in cost on account of inflation.

Mr. ANTON. Mr. Kaiser, at this point I would like to bring to your attention: The Air Force has submitted the second source schedule to which you refer. Looking at the schedules, which have been put into the record, this is what is indicated: Under the B-47 program the cost to the prime contractor was \$2,153,000. The cost of the second source was \$1,863,000.

Looking at the F-84, the cost of the prime contractor is \$492,000. The cost of the second source is \$752,000, or approximately 1½ to 2 times as much. Looking at the F-86 the cost of the prime contractor is \$127,000; the cost of the second source is \$192,000.

Now we have the C-119. The cost of the prime contractor is \$265,000; and according to the statement made by Mr. Edgar Kaiser this morning, the cost of the second source is going to be \$1,200,000.

Mr. HENRY J. KAISER. Just a moment.

Mr. EDGAR F. KAISER. That is just where you got the trouble. Were they comparisons at equivalent points? How many airplanes of the prime producers and the second sources have you quoted?

Senator SYMINGTON. They couldn't be comparable points.

Mr. EDGAR F. KAISER. Obviously ours and Fairchild's isn't. Everybody knows that now, I hope. We are talking about some \$800,000 per plane.

Mr. HENRY J. KAISER. Senator Byrd wants a complete statement and we will make it up.

Senator SYMINGTON. They are all comparable to any manufacturer, aren't they?

Mr. HENRY J. KAISER. No.

Senator SYMINGTON. Are there any you would want to take out as not comparable to the Fairchild costs?

Mr. EDGAR F. KAISER. Yes.

Senator SYMINGTON. Would you take the ones out?

Mr. EDGAR F. KAISER. Fairchild's percentage of plant capacity being used and, too, capacity as compared to ours is entirely different.



Senator SYMINGTON. But you would allocate your tool capacity and plant capacity based on what work you were doing, what particular place, wouldn't you?

Mr. EDGAR F. KAISER. It gets worse as you go on with this thing. It is more complicated. We have a big area. Let me show you the chart.

Senator SYMINGTON. Before we get into the chart, if you are making automobiles and you are making planes in a plant, you allocate so much of your square feet and allocate so much of the percentage of the heating costs to the automobiles and airplanes.

Mr. EDGAR F. KAISER. If we have tools sitting out here on the floor to do 93 airplanes and we are only doing, let's say, an equivalent of 10 airplanes a month on those tools, that is different in comparing that cost than it is with a fellow who has tools for 35 and is making 35. Do I make it clear?

Senator SYMINGTON. I don't quite follow you. I would think it would help to have other work in the plant from the standpoint of costs on this particular item.

Mr. EDGAR F. KAISER. I am talking about the aircraft side only.

Senator SYMINGTON. Therefore I would think you would take it out on the basis of being less favorable to Fairchild than to K-F.

Mr. EDGAR F. KAISER. No. On aircraft only, think of the aircraft side only, if you have machine tools enough to do 93 and you are only running 10 through.

Mr. HENRY J. KAISER. One of the most unfair impressions created was that Kaiser-Frazer attempted to claim reimbursement of improper costs.

The facts--and the committee staff is thoroughly familiar with these facts--are that, during the first year of the contract, we worked out the first manual of accounts and allocation system that has ever been worked out for a mixed aircraft-automotive operation.

We submitted it to the Air Force for approval some 4 months after the contract was awarded. This manual was approved, with minor changes, but not until 7 months after submission. After it was approved, it was, of course, necessary to go back and adjust the allocation of costs in accordance with the approved manual.

It was not only unfair, but totally misleading, to create the impression that K-F was attempting to charge items to aircraft that should be automotive during that period of time when the manual had already been submitted by us but had not been approved by the Air Force.

The committee's staff is thoroughly aware of the fact that the normal agreed procedure, now that the manual has been approved, is for us to take up any item on which there may be any question for review with the Air Force Audit Section before submitting any claim for reimbursement.

The cost of publishing the letter to Senator Bridges, in those towns only where K-F was operating plants, and in Washington, D. C., would normally, under the approved accounting procedure, have gone into the common account, to be distributed between automotive and aircraft costs. Because of the special circumstances involved, we raised the question of including this item, before submitting any claim, and K-F did not file a claim for reimbursement on this item.

The CHAIRMAN. Mr. Kaiser, I would like to discuss that a little bit with you. I hold in my hand a copy of an advertisement which appeared in the Washington Post and appeared in various other

papers in the country—Michigan, California, New Hampshire, Ohio, and so on.

Is this the copy of the advertisement which you identified?

Mr. EDGAR F. KAISER. Yes.

The CHAIRMAN. We will make that a part of the record.

(The document referred to follows:)

[From the Washington Post, November 14, 1952]

This letter is reprinted here for the information of the Department of Defense and the Congress, who are responsible for the security of the United States.

KAISER-FRAZER CORP.,  
*Willow Run, Mich., November 13, 1952.*

HON. STYLES BRIDGES,  
*United States Senate, Washington, D. C.*

DEAR SENATOR BRIDGES: On October 18, the newspaper Union Leader, in Manchester, N. H., reported that you were concerned about the cost of aircraft production at our Willow Run plant, as compared with such costs at another plant. Immediately upon reading this report, I endeavored to meet with you for the purpose of presenting the facts with regard to this matter. Although you stated you would be willing to meet with me for this purpose, you found it impossible to keep any of the several appointments which we made.

On November 9, while I was still endeavoring to make an appointment with you, you issued another statement to the general press, suggesting a congressional investigation into this matter, and you stated that you had withheld this release until after election because you did not want military procurement policies to become a political football. I regret that we did not have the opportunity to review the correct facts prior to the release of your latest statement.

There is an inference in your statement, by comparison of costs that are not in any respect comparable, that the Willow Run operation is inefficient. This is not correct, and the facts will substantiate this statement.

It is a matter of public record that the Air Force has pursued a policy of having more than one source of supply on military equipment that is essential to the national security. Our Willow Run plant, originally constructed for the Air Force, is such a source.

Now, on November 12, Representative O'Konski, from Wisconsin, who obviously appears to represent special interests, issued a release demanding the immediate cancellation of all Kaiser-Frazer airplane contracts, stating that he bases his demand on your reported statement. O'Konski, endeavoring to ride the coattails of your request, is ready to prejudge the matter without any inquiry as to the correct facts.

Judgment without trial is certainly not the American tradition.

Kaiser-Frazer is a public corporation, with more than 20,000 employees and 30,000 stockholders. Kaiser-Frazer operates 8 plants throughout the country, one of which is in your own State; namely, our electronics division. Over 2,000 suppliers furnish material and parts for our operations. More than 2,400 Kaiser-Frazer dealers have invested their own money in the distribution of our products throughout the nation.

In view of your request for an investigation and, now, O'Konski's demand for cancellation of the contracts without any hearing, I believe it is imperative that the correct facts be presented to the proper congressional committee, both for the protection of the defense program and the thousands of people who are directly affected. The management of Kaiser-Frazer agrees with you that the defense program and its costs are of paramount importance to our country. We will appreciate any help you can give us in seeing that this matter is brought before the public through the proper congressional committee at the earliest possible date.

We are publishing this letter in those cities and communities where we have manufacturing plants employing our 20,000 people, so that they will know that the management of their company is not only proud of the effort they are making in the defense and civilian programs, but is ready and willing to submit any and all facts with regard to our production performance on the defense program. We are also publishing it in Washington, D. C., so that all Members of Congress will likewise know that we want the true facts known.

Sincerely,

EDGAR F. KAISER, *President.*

This letter will be published in the following cities: Dowagiac, Mich., Detroit, Mich., San Leandro, Calif., Willow Run, Mich., Richmond, Calif., Nashua, N. H., Shadyside, Ohio, Jackson, Mich., Oakland, Calif.

The CHAIRMAN. You made several statements about us here. It struck me, and it struck the committee particularly, that this was a very unorthodox thing to do, to in any way attempt to charge this advertisement to the cost of the construction of the plane to the Government.

I would like to—because you have made a very general statement here—I would like to show you what our investigation shows.

Mr. Anton?

Mr. ANTON. Here is a letter by the assistant comptroller of the Kaiser Manufacturing Corp., dated February 19, 1953, some months after the cost of this was incurred. The subject is Expenses, Open Letter to Senator Bridges, to Air Force Plant Representative.

It reads as follows:

Certain expenses were incurred in the preparation and publication of a quarter-page open letter to Senator Bridges published in various daily papers in the month of November 1952. This letter was in answer to certain criticism of the performance of Kaiser-Frazer Corp. on Air Force contracts. The subject letter requested that any criticism of either Kaiser-Frazer Corp. or the Air Force in the placing and performance of Air Force contracts should be brought into the open so that these charges and criticisms could be answered.

The expense incurred in connection with this letter amounted to \$4,864.65 was included as allocable expense and was prorated to the cost of Government contracts in accordance with provisions of the Overhead Manual.

Your approval of this expense as a proper charge to the cost of Government contracts is requested.

Following this, on February 27, 1953, the resident auditor, in a memorandum replied:

The subject expense was incurred by the Kaiser-Frazer Corp. through William H. Weintraub & Co., Inc., advertising agency. Inasmuch as the United States Government and the Kaiser-Frazer Corp. have conflicting interests in this matter it is felt by this office that the expense should be considered an automotive expense.

On March 4, 1953, in a letter from Mr. Stephen Girard, the vice president of Kaiser-Frazer Corp., subject matter "Unresolved Items, attention of the contracting officer," he brings to the attention of the contracting officer that the cost of this open letter is still unresolved. (The document is as follows:)

KAISER MANUFACTURING CORP.,  
Willow Run, Mich., March 4, 1953.

Subject: Unresolved items.

To: AF plant representative, Kaiser Manufacturing Corp., Willow Run, Mich.  
(Attention: Mr. Meyer J. Stoun, contracting officer.)

In accordance with our previous discussions with you and in light of the fact that we realize that you have just recently been appointed as contracting officer of contract Nos. AF 33(038)-18481 and AF 33(038)-22446 replacing Capt. Harry Chance, we are setting forth below a listing of unresolved items on which we have submitted correspondence and had discussions with the prior contracting officer and, in some instances, with you. These items have been listed in order of importance, as you have requested, and we would appreciate your decisions on these matters at your earliest convenience in the order set forth.

We are submitting this listing to you in an effort to indicate our desire to be cooperative in handling these matters in an orderly manner, recognizing that it is to the interest of both the Government and this company that they be resolved as soon as possible, especially in light of the fact that some of these matters have been pending for long periods of time.

Item	Date first submitted	Subsequent correspondence or discussions
1. Vacation hours, voucher S-1662.....	Dec. 19, 1952	Dec. 23, 1952, Jan. 7, 1953. Discussions of Jan. 5, Jan. 20, Feb. 9, Feb. 20, 1953.
2. Overtime approval in allocable departments.....	Dec. 12, 1952	Dec. 29, 1952, Jan. 3, 1953. Discussions of Jan. 5, Jan. 20, Feb. 9, Feb. 20, 1953.
3. Overtime reconciliation and approval from inception of the contract.....	Dec. 15, 1952	Discussions of Jan. 5, Jan. 20, Feb. 9, Feb. 20, 1953.
4. Utilization of manpower.....	{Dec. 31, 1952 Jan. 12, 1953}	Do.
5. Willys-Overland C-119 estimate.....	Jan. 15, 1953	Numerous discussions and follow-up have been made on this item.
6. Whirlpool C-119 estimate.....	Oct. 31, 1952	Do.
7. Aircraft central stores requisition.....	Dec. 22, 1952	Various.
8. Out-of-area help wanted, accounting policy letter No. 21.....	Feb. 18, 1953	Do.
9. Moving and subsistence, classification, accounting policy letter No. 41.....	Dec. 31, 1952	Do.
10. Moving and subsistence, allowance period.....	Aug. 5, 1952	Do.
11. Aircraft scheduling and estimating departments accounting policy letter No. 42.....	Feb. 11, 1953	Do.
12. Charges from Kaiser services accounting policy letter No. 44.....	Jan. 20, 1953	Do.
13. Open letter to Senator Bridges accounting policy letter No. 45.....	Feb. 19, 1953	Do.
14. New departments, personnel accounting policy letter No. 46.....	Feb. 19, 1953	Do.
15. Ypsilanti board of commerce membership.....	Feb. 5, 1953	Do.
16. Overtime approval.....	Feb. 18, 1953	Do.
17. Professional fees: Executive Research, Inc.....	Feb. 4, 1953	Do.
Dun & Bradstreet.....	Feb. 18, 1953	Do.
Press Intelligence, Inc.....	Feb. 17, 1953	Do.
AIA dues.....		
18. Estimated fee for month of January 1953.....	Feb. 17, 1953	Do.
19. Duplicate tooling: Aeromatic tool-DD-396, dated Feb. 18, 1953, Warren alloy-DD-396, dated Feb. 20, 1953.....		Do.

If you feel that any further information is required in addition to that which has already been submitted in order that your decision may be expedited, please advise.

Very truly yours,

S. A. GIRARD,

*Vice President and General Manager, Aircraft.*

On the 25th of March the contracting officer replied as follows:

This acknowledges receipt of your letter, dated February 19, 1953, in connection with the above subject.

Advertising expense, amounting to \$4,864.65, for the open letter to Senator Bridges is considered to be advertising applicable to a controversial matter between the corporation and a member of the United States Senate. Advertising costs for other than "Help Wanted" and advertisements in trade and technical journals is not a reimbursable cost in accordance with A. S. P. R. XV and the accounting manual.

This decision resolves item 13 in Mr. S. A. Girard's letter, "Unresolved Items" to the undersigned contracting officer dated March 4, 1953.

The CHAIRMAN. My point is that you say:

Because of the special circumstances involved, we raise the question of including this item before submitting any claim, and Kaiser-Frazer did not file a claim for reimbursement on this item.

Now we are talking rather objectively to any misleading impressions being gathered. Isn't that a misleading impression in view of the letter written?

Mr. EDGAR F. KAISER. No, sir. Mr. Chairman, may I answer it?

The CHAIRMAN. Certainly.

Mr. EDGAR F. KAISER. We submitted these letters ourselves as proof of the fact that it was not filed for reimbursement.

The standard procedure is to take items on which we have any question and to write such a letter. If there is no question, we just submit it on the voucher for reimbursement.

It is true, and we submitted the letter ourselves, that our audit section raised the question and our audit section wrote this standard form of letter.

But it was never submitted on a voucher. We did not dispute it. The CHAIRMAN. My point here, Mr. Kaiser, is—

Because of the special circumstances involved, we raise the question of including this item before submitting any claim, and Kaiser-Frazer did not file a claim for reimbursement on this item.

My impression from that would be that it was handled in a very general way, that you made no attempt to get approval of this item. Yet here is a letter signed by the Kaiser Manufacturing Corp. by J. F. Cocks, Jr., assistant comptroller, and I quote:

Your approval of this expense as a proper charge to the cost of Government contracts is requested.

Mr. EDGAR F. KAISER. That is right, Senator. We submitted this letter as proof of the fact. This proves the fact that it was not submitted on standard vouchers.

Senator SYMINGTON. In other words, when you requested to get the money you were asking that it not be paid to you?

Mr. EDGAR F. KAISER. No, Stuart, no. That is not right. We were raising the question about it.

Of course, I don't think they should have done it. I wrote the letter originally.

Senator SYMINGTON. I will bet when you get with your father he will want to change that particular.

Mr. HENRY J. KAISER. Tell him what you did.

Mr. EDGAR F. KAISER. I wrote the original letter. There is no question about it. I have in the original draft "Not chargeable to the Government."

Sheldon Koonz, one of our directors, was with me when I wrote it. When it gets down to the mill, what happens? The boys question it and put it up on a standard form of letter for approval.

The fact is, our statement is true. Let's be frank about that. You fellows didn't uncover these letters. We gave you these letters and said, "Here is the evidence." There is no mystery about it. Have we ever withheld anything from you?

Mr. HENRY J. KAISER. Have you?

The CHAIRMAN. He isn't answering questions. You may proceed to testify.

To me there was a discrepancy between the statement of Mr. Henry Kaiser and this letter. I am glad to have your explanation of it.

Mr. EDGAR F. KAISER. Thanks very much. I would certainly like to leave it clear that we brought the letters. They are on file.

Mr. HENRY J. KAISER. Many of the specific items to which attention was called during the hearings were never submitted by us to the Air Force for payment. For example, we never asked the Air Force to pay for any of our interest expense. We never asked the Air Force to pay for any part of the \$60,000 mentioned as the cost of the dedication ceremony for the first C-119; in fact, we ourselves proposed that this item not be charged to the Air Force.

We never asked the Air Force to pay for vacations earned on automotive work; in fact, we ourselves proposed the vacation formula that was adopted.

Senator BYRD. Let me ask a question.

The CHAIRMAN. Senator Byrd.

Senator BYRD. Assuming that the Air Force had granted this payment of this money for the newspaper advertising, you would have accepted it, I assume?

Mr. EDGAR F. KAISER. I am sure they would have.

Senator BYRD. If you did not want it, why did you sign the letter?

Mr. EDGAR F. KAISER. I did not sign the letter. If it had been brought to my attention I would have stopped it.

Senator BYRD. Who signed it?

Mr. EDGAR F. KAISER. Mr. Cocks, an assistant auditor.

Senator BYRD. Did he sign it with your knowledge?

Mr. EDGAR F. KAISER. No. There was nothing about it.

Mr. HENRY J. KAISER. Senator Byrd, get this clear: Edgar had on the advertisement page, he had that arrangement. The public relations man took it off.

Senator BYRD. Are you not the president?

Mr. EDGAR F. KAISER. Yes; I am.

Senator BYRD. Can he make changes in your letter without your consent?

Mr. EDGAR F. KAISER. He did not make a change in the letter. He merely handled this as an accounting procedure.

Senator BYRD. You made it one kind of letter and they changed it?

Mr. EDGAR F. KAISER. When I wrote it I made it "Not chargeable to the Government." I did not send the memorandum to the accounting office saying "Don't charge it." It never occurred to me that anybody would question the item.

Senator BYRD. What is the letter?

Mr. EDGAR F. KAISER. That is the one in the record. I wrote the letter to Senator Bridges.

Senator BYRD. What letter is that?

Mr. EDGAR F. KAISER. The letter here.

Senator BYRD. I understand that. I understood you to say that you wrote some letter expressing the opinion that this should not be allowed as a deduction of expenses.

Mr. EDGAR F. KAISER. When I drafted this letter I had afterwards, when we were publishing it, "Not chargeable to the Government" written in parenthesis in my draft. Sheldon Koontz recommended I take it out. It was never any intent on my part, but I did not write a memorandum to the audit section and say "Don't raise the item for question."

Senator BYRD. If you think an item is not deductible you do not have to raise the question, do you? You just do not deduct it. There must have been some doubt in somebody's mind.

Mr. EDGAR F. KAISER. As I understand this, all these items go into an account and then the Air Force auditor and our people sit down and review them.

Senator BYRD. There must be a great many items in your business that are not deductible as an expense; are there not?

Mr. EDGAR F. KAISER. That are not reimbursable, you mean?

Senator BYRD. Yes.

Mr. EDGAR F. KAISER. That is right.

Senator BYRD. You have an automobile business and you have an airplane business under the same roof?

Mr. EDGAR F. KAISER. That is right. And all my personal expenses, they are not charged, any proportion of them.

Senator BYRD. Why is there any question about the fact that this would be reimbursable? Very clearly it could not be reimbursable. It would seem to me it should not even have been submitted to the Air Force unless somebody expected somewhere along the line that it would be reimbursed.

Senator SYMINGTON. Could I ask a question there? Did you file a voucher for the \$60,000 for the dedication ceremony comparable to the voucher you filed for the cost of the advertising?

Mr. EDGAR F. KAISER. Yes. We filed a letter.

Senator SYMINGTON. A letter?

Mr. EDGAR F. KAISER. A letter setting forth the whole thing.

Senator SYMINGTON. Asking for the money for the dedication?

Mr. EDGAR F. KAISER. No.

Senator SYMINGTON. That is what you did on the voucher?

Mr. EDGAR F. KAISER. We asked for some of it, and we said no on others.

Senator SYMINGTON. I want to get straight: What is the difference between the advertising and the \$60,000 based on your testimony for the dedication ceremony? Why is one handled on the basis of writing a letter and the other not on the basis of writing that kind of letter?

Mr. EDGAR F. KAISER. Stuart, I am not clear on your question.

Senator SYMINGTON. Would you read the testimony of your father, on the last two paragraphs? First you talk about the advertising, and that has been pretty well cleared up. In the next paragraph you say you never asked for the Air Force to pay for any part of the \$60,000. If you did not ask for that, or if you did not ask for interest expense which presumably you would or would not do based on standard policy in the Air Force, under a cost-plus-fixed-fee contract, my question is why, if you did not ask for it there, did you ask for it above unless above you wanted to get it for the advertising.

Mr. EDGAR F. KAISER. I do not think we can deny that the auditor when he wrote that letter was asking whether or not it could be put in. We cannot deny that and we do not attempt to.

Senator SYMINGTON. Was he asking on the basis that he would get it or hope to get it?

Mr. EDGAR F. KAISER. He was asking on the basis that he hoped to get it.

Senator SYMINGTON. That he wanted to get the money for the advertising?

Mr. EDGAR F. KAISER. Yes.

Senator BYRD. Here is what he said: "Your approval of this expense as a proper charge to the cost of Government contracts is requested." Signed by Cocks.

Mr. EDGAR F. KAISER. Right.

Senator BYRD. He did not ask whether or not he should get it.

Mr. EDGAR F. KAISER. It is a very technical point. Mr. Symington is absolutely correct. We did not—you see, many times we are turned down when we file something. We file a claim and ask for payment if we think it is a proper charge. Our statement here is

that we did not file a claim to try to override his decision on that. And that is different than the dedication expense.

Senator BYRD. You did ask for it in the first instance.

Mr. EDGAR F. KAISER. The auditor did, yes.

Senator BYRD. Let me ask this question and I say it with all fairness, because I want to find out the purpose in writing this letter. You only published this letter in cities or places where you had a plant.

Mr. EDGAR F. KAISER. That is right. With one exception.

Senator BYRD. And that happened to be in New Hampshire, one of them?

Mr. EDGAR F. KAISER. That is right.

Senator BYRD. Is that done for the purpose of arousing the animosity of the people in that plant toward Senator Bridges?

Mr. EDGAR F. KAISER. No, sir.

Senator BYRD. Why was it done?

Mr. EDGAR F. KAISER. It was done because we were being accused of being wasteful, having exorbitant charges, and we had a serious morale problem. We are selling, in our automobile business, products to the consumer. It damages public confidence to have those kinds of statements come out. It also damages the morale of our people.

Senator BYRD. Why not publish it all over the country? Why did you select those places where votes perhaps would be influenced against Senator Bridges?

Mr. EDGAR F. KAISER. We published it only in those cities where we had plants.

Senator BYRD. I say if it is a matter of general interest why did you not publish it everywhere. You published it in Washington? You do not have a plant in Washington, do you?

Mr. EDGAR F. KAISER. Yes, we have, right outside of Washington. A very small one. But we say, with the one exception—

Senator BYRD. Washington does not seem to be on this list.

Mr. EDGAR F. KAISER. It was. It was published in Washington. We say it is there because of the Members of Congress and the Air Force. It bothers us with the Air Force.

Senator BYRD. This is taken from the Washington Post, incidentally.

Mr. EDGAR F. KAISER. Right.

Senator BYRD. In other words, if a Senator of the United States does his duty in exposing certain extravagances of contracts with the Government, I do not think that an attack of this character should be made upon him, especially if the effort is made to charge it up to the Government.

Mr. EDGAR F. KAISER. I do not think we are attacking the Senator in there.

Mr. HENRY J. KAISER. Senator, may I say this: Edgar has said that he was concerned with his employees, that the employee morale would break down if we were considered as we were. He told me that he wanted to do this in order to keep up the morale in his plant.

Senator BYRD. I can see your right to do it and do it on your own accord.

Mr. HENRY J. KAISER. It is not a question of right, it is the question of the purpose of doing it.

Senator BYRD. The effort was made at least to have this paid for by the Government, attacking a United States Senator. It was not



confined to your employees because it was published in Washington, D. C.

Mr. HENRY J. KAISER. We have a plant outside of Washington. Senator BYRD. Your son said it was because of the Senators and Congressmen.

Mr. HENRY J. KAISER. We have a plant outside of Washington. Senator SYMINGTON. How many people are employed in that plant?

Mr. HENRY J. KAISER. I do not know.

Mr. EDGAR F. KAISER. I think only 50 or 60.

Senator SYMINGTON. What do you build there?

Mr. EDGAR F. KAISER. A project for the Bureau of Standards, classified, Mr. Symington.

Senator BYRD. It would have been cheaper to circularize those 50 rather than publish in the Washington Post.

Mr. EDGAR F. KAISER. We did not claim we did it in Washington because of that plant. We did it in Washington—it says we are saying this to Members of the Congress and to the Air Force, I think, or Defense Department. We said that right cold turkey.

Mr. HENRY J. KAISER. What are you asking for in the letter?

Mr. EDGAR F. KAISER. We were asking for a hearing.

Mr. HENRY J. KAISER. Is it wrong to ask for a hearing?

Mr. EDGAR F. KAISER (reading):

In view of your request for an investigation and, now, O'Konski's demand for cancellation of the contracts without any hearing, I believe it is imperative that the correct facts be presented to the proper congressional committee, both for the protection of the defense program and the thousands of people who are directly affected. The management of Kaiser-Frazer agrees with you that the defense program and its costs are of paramount importance to our country. We will appreciate any help you can give us in seeing that this matter is brought before the public through the proper congressional committee at the earliest possible date.

Mr. HENRY J. KAISER. Is this an attack?

On November 12, Representative O'Konski, from Wisconsin, who obviously appears to represent special interests, issued a release demanding the immediate cancellation of all Kaiser-Frazer airplane contracts, stating that he bases his demand on your reported statement.

Mr. EDGAR F. KAISER. Right.

Senator BYRD. In other words, the Congressman represents special interests—

O'Konski, endeavoring to ride the coattails of your request, is ready to prejudge the matter without any inquiry as to the correct facts. Judgment without trial is certainly not an American tradition—

and so forth.

If the Congressman is riding on Senator Bridges' coattails and represents special interests, you did not mean of course that Senator Bridges represents special interests?

Mr. EDGAR F. KAISER. No, we did not say that, either, or infer it.

Senator BYRD. You do think the Congressman represents special interest.

Mr. EDGAR F. KAISER. Yes. We said so.

Senator BYRD. What are the special interests?

Mr. EDGAR F. KAISER. Cyrus Eaton, in my opinion.

Mr. HENRY J. KAISER. He told me so. He told me Cyrus Eaton was in to see him. O'Konski did.

Senator BYRD. It does include an attack upon a Congressman. There is no question about that.

Mr. EDGAR F. KAISER. Yes, sir.

Mr. HENRY J. KAISER. He tells the truth himself. He made one statement to the press and then withdrew it and then made another statement.

Senator SYMINGTON. Do you believe it is right for a company heavily involved in Government contracts to take a direct position in senatorial congressional campaigns?

Mr. HENRY J. KAISER. To do what?

Senator SYMINGTON. To take a direct position.

Mr. HENRY J. KAISER. In senatorial campaigns?

Senator SYMINGTON. Yes.

Mr. HENRY J. KAISER. No sir; I do not.

Senator SYMINGTON. Has anybody in the Kaiser-Frazer Corp.—you or your son or any high officials in your company—taken an interest in any senatorial campaigns?

Mr. HENRY J. KAISER. To my knowledge I have never taken and I know of no one in our company—I know of no one in our company. I have been particularly fussy about that.

Senator SYMINGTON. If anybody in your company in high office was raising funds for one candidate against another, in a senatorial campaign, you, with a great deal of cost-plus-fixed-fee work in the Government, that would have been done without your knowledge?

Mr. HENRY J. KAISER. Yes, sir.

Senator SYMINGTON. Thank you. I wanted to be sure of that.

Mr. HENRY J. KAISER. Yes, sir. I am dead against that. I have even taken the position that I have not contributed to any campaigns, Democrats or Republicans. I question now whether that is right, since all the companies in the country are showing evidence of contributing to both sides. Maybe that is the way to get money from the Congress. I do not know. I do not know what to do, really.

Senator SYMINGTON. You might, inasmuch as you are testifying here—and I know you want to say what is correct—you might check that with some of the leading members of your own organization.

Mr. HENRY J. KAISER. I would be delighted to. I would be glad to have you give me the names so I can check it. We have 50,000 people. If somebody is doing something, I seriously object to it.

The CHAIRMAN. What would you do, Mr. Kaiser, if you found it to be true?

Mr. HENRY J. KAISER. Probably discharge them. I am so serious about it. Because they know that is not the policy—they know, if they know anything about this company, they know that it is not the policy of this company.

Senator SYMINGTON. If somebody in your organization called up the Air Force and said, "We would like to get information about a former member of the Air Force who is running for the Senate, that would hurt him in the campaign," and they were told that there was not any bad information, and this fellow said, "It doesn't make any difference whether it is good or bad, you give it to us and we will use it the way we can," you would not approve of that?

Mr. HENRY J. KAISER. He ought to be discharged if somebody did what you said.

Mr. EDGAR F. KAISER. I can assure you this is absolutely not true. You have known both of us too long.

Mr. HENRY J. KAISER. You do not think we would do anything like that, Stuart, do you? Or approve of it? You know me well enough, and you have known me for years. Do you really believe—

Mr. EDGAR F. KAISER. Do you think either of us would?

Mr. HENRY J. KAISER. Do you believe either of us would do a thing like that?

Senator SYMINGTON. I am only asking questions.

Mr. EDGAR F. KAISER. No, Stuart, answer it. Do you think so?

Senator SYMINGTON. As long as you bring it up, I will tell you that somebody whom you have often expressed great confidence in, and respect for their ability and integrity, furnished the information that I received with respect to one of the highest officials in your company. So let us not quibble around about it.

Mr. HENRY J. KAISER. Let us name him. Would you care to name the official?

Senator SYMINGTON. I will be glad to have him come down here and testify before this committee if you think it is advisable.

Mr. HENRY J. KAISER. I sure do.

Senator SYMINGTON. That will be done.

Mr. HENRY J. KAISER. Could you name the official now? We have nothing to hide. Let the public know it now.

The CHAIRMAN. We will go on—

Senator SYMINGTON. We will have him come before the committee and make the statement. Excuse me, Mr. Chairman.

Mr. HENRY J. KAISER. Thus, the public has received an entirely erroneous impression from the hearings to date, which I know this committee will correct after it reviews the evidence we are submitting today, most of which is confirmed by documents already in the possession of your committee's staff.

This committee should know that Kaiser-Frazer has other Government aircraft contracts and subcontracts—all of them on a fixed-price type basis. Kaiser-Frazer is the sole producer of the R-1300 aircraft engine, under license from Curtiss-Wright Corp.

We believe the records will substantiate that our performance as to costs, quality, and delivery under this contract is among the top-ranking engine producers in the country for the Air Force. We are machining large forgings for Boeing Aircraft on the B-52 program. We are building large subassemblies for Lockheed on the Navy P2V patrol bomber. Both Boeing and Lockheed are well satisfied with our performance under these contracts.

I am going to file, for the record, a detailed statement with respect to each of the points on which questions were asked, and testimony given, in the hearings of June 2 to June 5. I respectfully request that each member of this committee read with special care the portion having to do with audit and cost procedures at the Willow Run plant.

Mr. Solomon, Air Force auditor at Willow Run, testified that, in his opinion, no costs not allocable to defense contracts have been reimbursed.

Nevertheless, Mr. Solomon's testimony, in response to the questions, left a definite impression—which I am confident he never intended—that Kaiser-Frazer had submitted claims for reimbursement under the aircraft contract on items that should have been charged to auto-

motive and, further, that there was an attempt by Kaiser-Frazer to duplicate charges.

Mr. ANTON. At that point would you tell the committee whether or not you submitted any public vouchers for vacation pay the first 18 months of this contract?

Mr. EDGAR F. KAISER. I do not know that. But I do know that the accounting manual was not approved until 11 or—

Mr. ANTON. Did you or did you not submit public vouchers?

Mr. EDGAR F. KAISER. I do not know. I already answered your question. But I don't want you to get in here that if we did—I want it to be clear that the accounting manual was not approved at that time, and it could have been submitted for later review. That is the point that was not brought out.

There were 11 months went by here when a procedure wasn't approved by the Air Force.

Mr. ANTON. After the accounting manual was approved, did you submit any public vouchers?

Mr. EDGAR F. KAISER. Yes, we have submitted public vouchers.

Mr. ANTON. May the committee have copies of those for the record?

Mr. EDGAR F. KAISER. Certainly.

(The statement referred to is as follows:)

The accounting manual was approved by the Air Force on October 26, 1951. However, the manual did not include any procedure for distributing the cost of vacation pay between automotive and aircraft work. A formula for distributing vacation pay costs was worked out by the corporation and submitted to the Air Force on May 7, 1952. The Air Force accepted the formula on June 4, 1952, except for the question of whether vacation hours should be included or excluded in determining the proper basis for allocation of overhead costs as between automotive and aircraft work. This question is now a matter of appeal to higher Air Force authority in accordance with the provisions of the contract.

The vacation pay formula approved by the Air Force was first put into effect for the last payroll week in June 1952, and appropriate adjustments were made for all prior payrolls. For the calendar year 1951, the adjustment agreed on by the corporation and the Air Force audit staff, included in the joint audit report for that year, was \$468,967.10. For the first 6 months of 1952, the agreed adjustment included in the joint audit report for that period was \$170,354.96.

An additional adjustment was subsequently made for the last 6 months of 1952. Although the new formula had taken effect beginning with the last payroll week in June of that year, the formula required that extensive work histories be developed for each employee affected, in many cases covering the previous 24 months. Until this information was developed for each employee, the new formula could not be applied to his payroll record, and retroactive adjustments had to be made after the information was compiled. The total of these adjustments for the last 6-month period of 1952, as agreed by the corporation and the Air Force audit staff, was \$53,989.87.

Thus, the total adjustments as a result of the revised formula totaled \$693,311.93 for the calendar years 1951 and 1952. Of this amount, only \$53,989.87 represents adjustments for payroll periods following the approval of the new vacation-pay formula. The retroactive character of these adjustments was an inevitable consequence of the formula adopted, since the formula required the use of individual work histories that had to be compiled over a period of time.

The task of completing these work histories and revising them to take account of subsequent employee transfers between aircraft and automotive work continued through the early months of 1953, and an additional adjustment will probably be reflected when the corporation and the Air Force audit staff agree on the joint audit for the first 6 months of 1953. According to Mr. Solomon's table appearing in the transcript at page 322, the aggregate amount of these adjustments through February 28, 1953 (including the various adjustments listed above for 1951 and 1952) was \$715,631.44, apparently indicating that approximately \$22,000 of further adjustments are believed necessary by Mr. Solomon for the first 2 months of 1953.

Mr. HENRY J. KAISER. I wish to state for the record here that there is absolutely no truth whatsoever to such inferences. The detailed statement I am filing covers each one of these items in detail.

The CHAIRMAN. Mr. Kaiser, we have a difference of opinion here as to what was said or what was inferred here. This is a good chance to straighten it out because you say "There is absolutely no truth whatsoever to such inferences."

You have undoubtedly, I assume, read all the testimony of the Air Force witnesses which this committee heard under oath, and also the former Secretary McCone, whom we heard under oath.

You refer to absolutely no truth in inferences and to false inferences, and you took issue with me when I gained the impression that you said more. Now you question the facts of the statements which they made.

Did they tell the truth or didn't they?

Mr. HENRY J. KAISER. That is too broad a question. Edgar can answer the details. We have an 88-page record right now, Senator, that has been very carefully prepared. I think it will answer every one of your questions.

Mr. EDGAR F. KAISER. I can answer it. I think they told the truth. I just don't think all the facts got out. I think an impression was created by not getting all the facts out.

The CHAIRMAN. You say that everything they said was the truth, but—

Mr. EDGAR F. KAISER. No.

The CHAIRMAN. Isn't that what you said? That you thought they told the truth?

Mr. EDGAR F. KAISER. But they did not go all the way. Even when you read Solomon's exhibits, what he has there is right. But it looks as though, when you read it actually, he doesn't claim that we claimed all that stuff. But the questioning indicates that we did.

The CHAIRMAN. In other words, everything as far as you know was the truth. You say that the truth as testified to this committee didn't give the full picture as you would like the committee to know it? Is that it?

Mr. EDGAR F. KAISER. I can't really be in a position—and I am not saying that maybe they didn't tell the truth—to know whether or not all the facts—I can only check on the ones we checked—that they stated are so.

I don't accuse them of that. What I accuse them of is not getting the other side of the story out. It is just like this business of charging all the tooling and all the preproduction expenses against 71.4 airplanes instead of 159.

It is bad enough with 159. But why charge it all against 71.4 and compare that with 71.4 of Fairchild at a given stage of production with some of the tooling already written off? I don't think that is fair.

The CHAIRMAN. If General Cook testified here that he agreed with all the figures given by the Air Force, and they challenged none of the facts presented in the hearing, and if you don't, then it is a—

Mr. EDGAR F. KAISER. No; General Cook didn't do that. General Cook repeatedly said they are not comparable.

The CHAIRMAN. He said, in answer to a question by me:

I know of no inaccuracies in the figures that the Air Force could challenge.

Mr. EDGAR F. KAISER. Didn't he say in that same business in there that they are not comparable?

Mr. HENRY J. KAISER. Yes; he did. Time and time again. Read it, Ed.

The CHAIRMAN (reading):

The CHAIRMAN. I understand from your statement that as far as you are concerned as to the figures, that you know of no particular factor here that was testified to this morning the Air Force would challenge?

General Cook. I know of no inaccuracies in the figures that the Air Force would challenge.

Then we go on to further questions. Let's clear it up later.

Mr. EDGAR F. KAISER. On June 5, at the same time—if somebody has the June 5 transcript—

Mr. HENRY J. KAISER. Would you like to clear it up later?

The CHAIRMAN. Yes.

Mr. HENRY J. KAISER. In contrast to the false and damaging impressions that have been created about us as the result of these hearings, a number of equally false, but favorable impressions have been created about Fairchild.

Thus, the public appears to have formed the impression that Fairchild owns all the rights to the C-119, including a monopoly on the right to build it, and that when the Government awarded a C-119 contract to us, the Government was unfairly taking something away from Fairchild.

As the records in the possession of your committee's staff will show, the fact is that for military purposes the C-119 does not belong to Fairchild.

For military purposes it belongs exclusively to the United States Government, which spent millions of dollars to have it built and developed by Fairchild. The fact is, the Government built and owns the major plant in which Fairchild builds C-119's at Hagerstown.

I would like to clarify one paragraph at the top of this statement which I filed yesterday, pursuant to the committee's request.

In the mimeographed copy I said the C-119 plane is owned not by Fairchild but by the United States. The United States does hold and own the military rights and paid to have the plane developed and built at Government expense, and since these are military contracts we are talking about, my point is correct; that this plant, for military purposes, belongs to the Government and not to Fairchild and there never has been any question as to our building the plane for commercial purposes in competition with Fairchild.

Senator SYMINGTON. Mr. Kaiser, I would like to ask you a question there so long as you bring up the question of Fairchild.

If you have a cost-plus-fixed-fee contract, if you are in a Government plant or under private ownership, the nature of cost is interpreted in the contract so that you are not punished either by operating out of a Government contract or a private contract; is that correct?

Mr. HENRY J. KAISER. That is correct.

Senator SYMINGTON. So that the fact that the Government owns the Fairchild plant or the Government owns the Willow Run plant, or does not, that has not got anything to do with comparative costs?

Mr. HENRY J. KAISER. Except this—

Senator SYMINGTON. If it is properly segregated.

Mr. HENRY J. KAISER. That is right. But somebody has to produce the money. The statement has been made that we are getting money from the Government being handed out to us. We had to borrow everything on every plant, as you know, Stuart.

Now, what we did on the steel plant—on the steel plant the Government furnished \$200 million and then sold it back to the steel company for 20 cents on the dollar.

We had to borrow the money, as you well know, and you said you didn't think it was right; we had to borrow the money and then pay \$23 million interest on it. That is the comparison that isn't right. It is the interest.

Senator SYMINGTON. You thought it was an unfair deal then. But you don't think it is so unfair now, do you?

Mr. HENRY J. KAISER. Because I borrowed \$200 million more to put into it?

Senator SYMINGTON. How much profit have you made on the steel operation?

Mr. HENRY J. KAISER. I will give you a statement on it. The Government—

Senator SYMINGTON. That is off the question of the C-119. I would like to go back here. You say that you never asked the Air Force to pay for any of your interest expense that involves private money.

Isn't there a policy on a cost-plus-fixed fee contract as to whether you would or would not be reimbursed for the interest?

Mr. EDGAR F. KAISER. Interest is not allowable expense.

Senator SYMINGTON. Then if you knew that you normally wouldn't ask for it.

Mr. EDGAR F. KAISER. It was referred to in here as something that the auditor had allowed on us, that we claimed it.

Senator SYMINGTON. What I am trying to get at is that that is the type and character of expense that is taken into consideration, in private ownership against the Government.

Mr. HENRY J. KAISER. Fairchild has no interest. It is Government money.

Senator SYMINGTON. My only point is that you always analyze the differences in operations in a Government plant and private plant.

Mr. HENRY J. KAISER. I agree with you.

Mr. EDGAR F. KAISER. What is fair about saying that here are some interest charges we are trying to claim? It looks like we were trying to claim it. We weren't doing that.

Mr. ANTON. The record will show that is not the statement.

Mr. EDGAR F. KAISER. I have found that reference to General Cook, if I may read it. You said (p. 395):

The CHAIRMAN. May I ask General Cook as the senior Air Force officer here if the Air Force has listened to the presentation by representatives of the Air Force this morning, and do you care to challenge or to in any way criticize any of the figures given here, or do you want to stand on your own auditor's statements?

General Cook. Mr. Chairman, I feel—I know that the figures that the auditors have given you are correct in the eyes of the Air Force. However, I feel that in fairness to everyone here, including your own distinguished committee, that there is a possibility of having figures used in a comparable sense which really are not comparable.

Mr. RHODES. Carrying that a step further, then you say that the Air Force created an untrue inference?

Is this not true? Isn't that the nub of what you are saying? That the Air Force created, by these figures, an untrue inference?

Mr. EDGAR F. KAISER. No.

Mr. HENRY J. KAISER. You are putting words in my mouth.

Mr. RHODES. I am asking a question.

Mr. EDGAR F. KAISER. I am the one who said this. I think Mr. Anton did, because he only asked the questions that would develop Kaiser-Frazer in a bad light.

Mr. RHODES. We are talking about the figures that General Cook said had been submitted by the Air Force. You now say they create an untrue inference.

Mr. EDGAR F. KAISER. Unfair comparison. False impression. That is what we said. And I think they do by not bringing the other side out. The funny part to me is—for instance, I keep asking this question: Is it fair to include all the preproduction expense and tooling against 71.4 airplanes.

Mr. RHODES. I am not arguing this point.

Mr. EDGAR F. KAISER. Can't you say it is fair or isn't?

Mr. RHODES. I am saying to you, you are finding yourself at variance with the Air Force figures. Can we leave it at that?

Mr. HENRY J. KAISER. No.

Mr. EDGAR F. KAISER. No, absolutely not.

Mr. RHODES. I am sorry, Mr. Chairman.

Mr. EDGAR F. KAISER. I think you are right if you are talking about—but Solomon didn't say those words. He just submitted some figures. He doesn't explain them.

Mr. RHODES. You are trying to prove something out of General Cook's mouth that I don't think you can logically prove.

Mr. EDGAR F. KAISER. General Cook repeatedly said all the way through here, these figures are not comparable.

Mr. HENRY J. KAISER. He said it in the whole complete statement.

The CHAIRMAN. But at the end, Mr. Kaiser, he said in answer to my question:

I know of no inaccuracies in the figures that the Air Force could challenge.

Mr. EDGAR F. KAISER. That is right.

The CHAIRMAN. Up here he said, where you quoted:

However, I feel in fairness to everyone here, including your own distinguished committee, that there is a possibility of having

he doesn't say they are, but there is a possibility.

Go ahead, Mr. Kaiser.

Mr. HENRY J. KAISER. The Government gives Fairchild use of the main Hagerstown plant rent free. For your information, Mr. Symington, it was pretty difficult to come to you and get any money. Would Fairchild have the same problem?

Senator SYMINGTON. Mr. Kaiser, you haven't done so badly in getting money.

The CHAIRMAN. We can't have you asking members of the committee questions. You may proceed.

Mr. HENRY J. KAISER. The Government gives Fairchild use of the main Hagerstown plant rent free. The Government foots the bill for development and facility expenses, and has done so for more than 10



years. In contrast, Kaiser-Frazer has all the expenses of private ownership at Willow Run, including property taxes and plant depreciation. I want to say this in answer to the question of whether I have done badly or not: 95 percent of our business is privately financed. Most people don't know that. That should be a fact the public should know.

Senator SYMINGTON. I am a very great admirer of Mr. Kaiser. He is bringing these things up. I was perfectly willing not to mention it, but I will say that if you will look at the record you will find that more things are privately financed than he did that went well, as against what the RFC now holds that didn't go so well.

Mr. EDGAR F. KAISER. That is privately financed.

Senator SYMINGTON. The reason, as Edgar knows, that I didn't want him to go into this business, is that I was afraid of what would happen and I so told him what did happen would happen, that there would be accusations of putting overhead in the automobile business on the aircraft business.

We went into that. I would like to make the record show also that you are a fine manufacturer. But the record is the record.

Mr. HENRY J. KAISER. I agree.

Mr. EDGAR F. KAISER. I don't. The auditor testified——

Senator SYMINGTON. May we go ahead with the C-119?

Mr. ANTON. Mr. Kaiser, could you tell the committee what you received from the Government under this contract on plant depreciation? How much?

Mr. HENRY J. KAISER. Edgar?

Mr. EDGAR F. KAISER. I can't give that figure.

Mr. ANTON. Is it in the neighborhood of \$1½ million a year?

Mr. EDGAR F. KAISER. I don't know that.

The CHAIRMAN. Will you furnish it for the committee?

Mr. EDGAR F. KAISER. Yes, sir.

(The statement referred to follows:)

The total amount of depreciation charged to the Government under the C-119 contract from its inception in December 1950 through May 31, 1953 is \$948,840.28. Of this amount, \$351,970.15 represents depreciation on the Willow Run facilities purchased by Kaiser-Frazer from War Assets Administration, the predecessor of General Services Administration, and the remainder represents depreciation on machinery and equipment owned by Kaiser-Frazer and used in performing the C-119 contract. On an annual basis, total depreciation charged to the C-119 contract has averaged approximately \$380,000 per year, of which depreciation on the Willow Run facilities purchased from the Government has averaged approximately \$145,000 per year.

Mr. HENRY J. KAISER. The Government, during World War II invested almost \$42 million in facilities operated by Fairchild, as compared to a little over \$1 million invested by Fairchild itself?

Mr. ANTON. Could you furnish the committee with a detailed statement as to this \$42 million?

Mr. HENRY J. KAISER. We will attempt to do that.

Mr. ANTON. I believe that will be very important for the committee to have that information in detail.

Mr. HENRY J. KAISER. It is already in the statement.

Mr. EDGAR F. KAISER. It is in the report of Surplus Property Administration to the Congress, entitled "Aircraft Plants and Facilities," dated January 14, 1946, page 40.

(The document referred to follows:)

A photostat copy of the table appearing in the above cited report at page 40 follows below. The report does not give any details as to the particular facilities on which the sums mentioned were spent, or where these facilities are located.

EXHIBIT A.—Aircraft manufacturers as ranked among the 100 corporations having the greatest war manufacturing expansion (value of facilities authorized—June 1940–August 1944)

[Thousands of dollars]

Numerical rank	Name of corporation	Aircraft only			Total expansion		
		Total	Public	Private	Total	Public	Private
2	General Motors Corp. <sup>1</sup>	535,029	501,359	33,670	911,704	809,926	101,778
5	Curtiss-Wright Corp.	471,523	425,165	46,358	—	—	—
8	Ford Motor Co.	234,931	223,618	10,773	371,657	335,473	16,184
9	Chrysler Corp.	198,389	197,614	765	313,293	304,238	9,055
10	General Electric Co.	52,734	49,654	3,080	291,132	206,120	85,012
13	United Aircraft Corp. <sup>2</sup>	243,545	206,667	36,878	—	—	—
15	Douglas Aircraft Co.	212,003	196,893	15,110	—	—	—
19	Consolidated Vultee Air. Corp.	169,889	142,418	27,471	—	—	—
24	Goodyear Tire & Rubber Co.	45,990	36,731	7,459	151,267	108,270	42,997
27	Bendix Aviation Corp.	121,320	110,554	10,766	—	—	—
30	Packard Motor Car Co.	93,397	93,084	313	108,097	102,658	5,439
32	Continental Motors Corp.	89,940	87,932	2,088	100,732	96,747	3,985
34	Bell Aircraft Corp.	98,719	92,855	5,844	—	—	—
35	Studebaker Corp.	93,385	92,888	724	93,653	92,933	720
41	Remington Rand, Inc.	22,940	22,730	210	88,718	84,142	4,576
42	Sperry Corp.	45,068	44,936	1,034	85,073	72,638	12,435
43	North American Avia., Inc.	83,745	78,774	4,971	—	—	—
44	Glenn L. Martin Co.	81,372	77,424	3,948	—	—	—
49	Boeing Airplane Co.	76,494	71,089	5,355	—	—	—
54	Nash Kelvinator Corp.	71,651	71,427	124	73,341	72,725	615
57	A. O. Smith Corp.	45,219	44,167	1,052	66,216	60,327	5,889
64	Lockheed Aircraft Corp.	54,910	29,814	25,096	—	—	—
68	The Aviation Corp.	50,741	49,079	2,662	—	—	—
69	Allis-Chalmers Corp.	25,145	25,145	—	50,198	41,442	8,756
78	Republic Aviation, Inc.	45,751	45,135	616	—	—	—
82	Fairchild Aviation Corp.	42,999	41,625	1,374	—	—	—
85	Higgins Industries, Inc.	31,100	31,100	—	38,077	32,307	5,770
86	Cleveland Pneumatic Tool Co.	35,503	27,910	7,653	—	—	—
87	Edw. G. Budd Co.	23,511	21,899	1,622	34,857	28,628	6,229
88	Thompson Products, Inc.	34,518	30,48	4,035	34,807	30,741	4,065

<sup>1</sup> Includes AC Spark Plug Aero Products, Allison, Buick, Cadillac, Chevrolet, Delco Products, Eastern Aircraft, Fisher Body, Frigidaire, Packard electric divisions.

<sup>2</sup> Includes Hamilton Standard Propeller, Chance Vought Aircraft, Vought Sikorsky, and Pratt-Whitney aircraft divisions.

Source: War manufacturing facilities, War Production Board.

Senator BYRD. We have discussed interest. The fact that your various corporations have gotten \$420 million in tax amortization, does that enter into the contracts in any way in computing the contracts for the Government? Was any credit given to the facts of the savings that result to you by reason of these tax amortizations?

Mr. EDGAR F. KAISER. Senator, I am not really clear.

Senator BYRD. The statement that I have here is that the Kaiser Metal Products Co. has already been certified to have tax amortizations, which is anticipation—

Mr. EDGAR F. KAISER. 5-year depreciation?

Senator BYRD. Yes, in the amount of \$389,000. Kaiser-Frazer \$772,000. Permanente Cement Co., \$5,015,000. Kaiser Bauxite, \$11,804,000. Kaiser Steel, \$117 million, which has been approved, and there is an application still pending for \$52 million.

The Kaiser Aluminum & Chemical Corp., \$283,787,000. Pacific Coast Steamship Co., that was withdrawn. That makes a total of \$420,499,000. You received benefits from that, of course, because you can amortize your investment in 5 years.

Mr. EDGAR F. KAISER. On 5 years instead of the normal period, right.

Senator BYRD. Instead of 25 or 30 years. You are doing so at a time of very high taxation.

Mr. HENRY J. KAISER. Did you ever figure what the other companies have?

Senator BYRD. I am not talking about the other companies.

Mr. HENRY J. KAISER. You might make the comparison.

Mr. EDGAR F. KAISER. There are arguments both ways on that, Senator.

Senator BYRD. Shouldn't some consideration be given to that, which amounts, in effect, to a considerable tax reduction?

Mr. EDGAR F. KAISER. That is right. But likewise after the 5 years, depending on your tax rate, it can be an added burden, you see. It works both ways.

Senator BYRD. I understand that. You are getting the reduction at a time of high taxation.

Mr. EDGAR F. KAISER. The big one is the Aluminum Co.

Senator BYRD. Then if you have losses, by reason of taking this depreciation off, you can carry those losses further than 5 years.

Mr. EDGAR F. KAISER. At the present time I think it is 5 years.

Senator BYRD. You have to consider that question, and the fact that you get these tax reductions by reason of the amortization, where the average time would be 25 or 30 years?

Mr. EDGAR F. KAISER. Yes, sir.

Senator BYRD. Then if that should occasion loss, you would still get the benefit of it and carry your losses more than 5 years.

I think that is a considerable item. I am wondering—I am not talking about what other companies do, but I am a member of the Finance Committee and I am wondering if some consideration shouldn't be given to that in these Government contracts.

Mr. HENRY J. KAISER. That is a very worthy question. But there are \$26 billion of tax amortization already issued by the Government.

Senator BYRD. That may be right or wrong. That has nothing to do with this question.

Mr. EDGAR F. KAISER. I am not sure of this, but I think that is where it would come.

(The document referred to above follows:)

*Kaiser—Tax amortizations: Applications, certifications, amortizations<sup>1</sup>*

Company	Amount of application	Amount certified	Amount eligible for amortization in 60 months
Kaiser Metal Products.....	\$1,608,000	\$1,389,000	\$1,042,000
Kaiser-Frazer.....	1,461,000	772,000	579,000
Permanente Cement Co.....	5,733,000	5,015,000	3,109,000
Kaiser Bauxite.....	11,804,000	11,804,000	9,543,000
Kaiser Steel.....	175,368,000	117,732,000	98,644,000
Kaiser Aluminum & Chemical Corp.....	314,420,000	283,787,000	208,517,000
Permanente Steamship Co.....	775,000	(2)	
Kaiser Industries.....	2,510,000	(2)	
Pacific Coast Steamship Co.....	27,000,000	(4)	
Total.....	540,685,000	420,499,000	321,434,000

<sup>1</sup> Altogether 62 applications were made of which 51 were granted in whole or part. Figures are as of June 22, 1953.

<sup>2</sup> Does not include application for \$52,000,000 amortization allowance still pending.

<sup>3</sup> Denied.

<sup>4</sup> Withdrawn.

## Reconstruction Finance Corporation—Loans to Henry J. Kaiser Co. and affiliates

	Year approved	Net amount disbursed	Date repaid	Amount outstanding May 31, 1953
Kaiser Steel Corp., Oakland, Calif. ....	1942-45	\$123,304,620	1950	-----
Permanente Metals Corp., Oakland, Calif. ....	1941-43	28,561,671	1945	-----
Kaiser Cargo, Inc., Oakland, Calif. ....	1943	1,000,000	1946	-----
Kaiser-Frazier Corp., Detroit, Mich. ....	1949	33,620,600	-----	\$24,063,225
Kaiser-Frazier Sales Corp., Detroit, Mich. ....	1949-50	32,625,128	-----	8,421,000
Total .....		219,011,919	-----	33,385,125

## Reconstruction Finance Corporation loans to Henry J. Kaiser Co. and affiliates

	Date approved	Amount authorized	Remarks
Kaiser Steel Corp., Oakland, Calif.	Mar. 4, 1942. ....	\$48,700,000	
	Nov. 2, 1942. ....	26,050,000	
	July 10, 1942. ....	8,619,000	
	Oct. 1, 1942. ....	700,000	
	Apr. 10, 1943. ....	21,736,000	
	Sept. 18, 1943. ....	4,000,000	
	Jan. 20, 1944. ....	1,000,000	
	Dec. 22, 1944. ....	1,000,000	
Total .....	1942-44. ....	111,805,000	Fully disbursed—\$102,788,198 refunded Nov. 17, 1945, by following loans.
	Aug. 18, 1945. ....	69,500,000	
	Sept. 21, 1945. ....	10,318,000	
	Aug. 18, 1945. ....	35,510,000	
Total .....	1945. ....	114,328,000	\$102,788,198 used to refund prior loans, 40,182 canceled—Loans repaid Nov. 1, 1950. Refunded Jan. 19, 1942.
Permanente Metals Corp., Oakland, Calif.	Feb. 21, 1941. ....	3,500,000	
	June 30, 1941. ....	5,750,000	Do.
	Nov. 10, 1941. ....	21,250,000	Paid Oct. 24, 1945—\$9,163,329 used to refund above 2 loans.
	Feb. 19, 1942. ....	2,000,000	Paid Nov. 15, 1945.
	Mar. 4, 1942. ....	4,115,000	Paid Nov. 29, 1945.
Kaiser Cargo, Inc., Oakland, Calif.	Mar. 30, 1943. ....	750,000	Do.
	Sept. 26, 1943. ....	360,000	Paid Sept. 8, 1945.
	Mar. 4, 1943. ....	1,000,000	Paid Feb. 14, 1946.
Kaiser-Frazier Corp. ....	Oct. 6, 1940. ....	34,400,000	\$379,500 canceled prior to disbursement.
Kaiser-Frazier Sales Corp.	Oct. 21, 1949. ....	10,000,000	Outstanding balance May 31, 1953—\$24,063,225.
	Dec. 4, 1950. ....	25,000,000	Outstanding balance May 31, 1953—\$8,421,000. Paid Apr. 28, 1953, \$2,374,872 canceled prior to disbursement.

NOTE.—A net amount of \$219,011,919 was disbursed on the above loans of which \$185,626,794 has been repaid and \$33,385,125 remains outstanding on the Kaiser-Frazier loans at May 31, 1953.

Senator BYRD. You mentioned a while back the fact that you have gotten most of your money from private sources, private means. You borrowed \$219 million from the RFC, and you now owe \$33,385,000. That is about correct, is it not?

Mr. HENRY J. KAISER. That is about right.

Senator BYRD. Then you borrowed through the V-loans—

Mr. EDGAR F. KAISER. That is private banks.

Senator BYRD. But guaranteed by the Government. That is quite important. You borrowed originally \$60 million of V-loans, 90 percent of which was guaranteed by the Government, and you now owe \$41,480,000. Is that correct?

Mr. HENRY J. KAISER. Senator, it is all in our testimony submitted here.

Senator BYRD. I mean the total of these. I am not taking into account what you have paid off. The total of it runs about \$280 million from Government agencies, if this is all of it.

Mr. HENRY J. KAISER. On page 84 of the statement we submitted, we show that Kaiser-Frazer received no greater degree of Government assistance than any other company.

Senator BYRD. You have stated that only 10 percent, as I understand it, of your needs were furnished by the Government?

Mr. HENRY J. KAISER. 5 percent.

Senator BYRD. You borrowed \$280 million from the Government. You do not mean that you borrowed nine times that much from other sources, do you?

Mr. HENRY J. KAISER. Not now, not today.

Senator BYRD. But the point is that you have to consider the whole picture. These loans that I am reading start in 1942.

Mr. HENRY J. KAISER. Do you take into consideration the steel plants that got \$6 billion worth of plants and bought them back at 20 cents on the dollar? And we were forced to borrow and pay interest on it? Is not there something different in that?

Senator BYRD. I am not discussing that part of it.

Mr. HENRY J. KAISER. But you are discussing our borrowings.

Senator BYRD. I am not discussing your steel plants yet. We may go into that later on. I am talking about your statement that you have been 90 percent privately financed.

Mr. HENRY J. KAISER. Ninety-five percent at the present stage.

Senator BYRD. I respectfully submit that the record will not show that, because you have borrowed at one time or another since 1942, \$280,000,000, both from the RFC plus these V-loans which are virtually Government loans because they are guaranteed 90 percent by the Government.

Mr. EDGAR F. KAISER. May I answer that? There is a difference between us here. The \$33,000,000 from the RFC is a loan of the nature you are speaking of.

Senator BYRD. That is the present loan. You borrowed \$219,000,000. You have Government contracts which I think can be shown, and paid those loans off to some extent.

Mr. HENRY J. KAISER. Would you allow me to explain that?

Senator BYRD. My records show that you have \$631,000,000 of Government contracts. That may not be the total. I am not complaining about it. You performed a very useful service. I am trying to get to the facts.

Mr. HENRY J. KAISER. May I explain that? Of that 200 some odd million, you are including the steel plant. We were forced to borrow the money while our competitors, several hundred miles away, were given the money by the Government to build the plant which they later bought at 20 cents on the dollar. You know about that.

Senator SYMINGTON. Anybody could have bought it. You could have bought it if you had come in and bid on it.

Mr. HENRY J. KAISER. We were forced to buy it.

Senator SYMINGTON. As I remember, you wanted me to close Geneva when I was in service because you could not compete with it. I told you to keep on going, maybe you could compete with it.

In any case you cannot close a \$280 million plant. At that time you were buddies with Cyrus Eaton instead of fussing with him.

You brought him down in a frock coat and made quite a show of it before Senator O'Mahoney. As it turned out Geneva went fine. Everybody in Utah is happy and you are happy because Fontana is making a lot of money for you. I think Senator Byrd's point is well taken. You have borrowed more money from the United States Government to go into business than anybody in the United States, I will bet. That is the only thing that Senator Byrd is bringing out.

Mr. HENRY J. KAISER. The difference is that I borrowed it because I was forced to do it to get steel for the ships. You are not giving any credit for that.

Senator SYMINGTON. You used to give me the dickens for not lending you more when I was in RFC.

Mr. HENRY J. KAISER. You are not listening to this.

The CHAIRMAN. Go ahead, Mr. Kaiser.

Mr. HENRY J. KAISER. Before this committee draws any conclusions as to cost comparisons between Kaiser-Frazer's operations at the privately owned Willow Run plant and Fairchild's operations at the Government-owned Hagerstown plant, it may want to take testimony on the amount of money the Government has invested in facilities operated by Fairchild and in the development of the C-82 and the C-119 at Government expense.

We believe that this committee should not draw conclusions as to the relative performance of the two companies until the records of both companies have been studied with equal care.

Senator BYRD. Mr. Chairman?

The CHAIRMAN. Senator Byrd.

Senator BYRD. In order to make this picture complete: My information is that you have present defense contracts—I say this in no spirit of criticism—totaling \$631 million. The committee would like to have your total contracts beginning in 1942. What was the total of all the Government contracts you had? If you cannot furnish it now, furnish it later.

Mr. HENRY J. KAISER. All right. (See appendix G.)

Mr. ANTON. That was the information that you gave us, I might add, on the KMC contracts.

Senator BYRD. Those are the present contracts in existence today? \$631 million?

Mr. EDGAR F. KAISER. Are you referring to any company in which we have any kind of interest?

Senator BYRD. I am referring to your affiliate companies, of which we have a list. There are 14 of them; is that correct?

Mr. EDGAR F. KAISER. Right.

Senator BYRD. I ask that they be put in as part of the record.

The CHAIRMAN. They will be so put in.

(The list of names is as follows:)

Consolidated Builders, Inc.  
Compania Mexicana Occidental, South America  
Foothill Electric Corp.  
Glazier Sand & Gravel Co.  
Gypsum Carrier, Inc.  
Industrial Indemnity Co.  
Iron Queen Mining Co.

Pacific Coast Cement Corp.  
Pacific Coast Steamship Corp.  
Permanente Cement Co.  
Permanente Steamship Co.  
Phoenix Bridge Co.  
Sierra Magnesite Co.  
West Willow Housing Development.

Senator BYRD. You own the majority interest or controlling interest?

Mr. EDGAR F. KAISER. No, sir. Many of them we don't.

Senator BYRD. Why are they regarded as Kaiser companies?

Mr. EDGAR F. KAISER. That is what bothers us.

Senator BYRD. Which ones are not? The Consolidated Builders, is that your company?

Mr. EDGAR F. KAISER. No, sir. We have an interest in it in which we own about 20 percent.

Senator BYRD. Mexicana Occidental, South America; what is that?

Mr. EDGAR F. KAISER. That is construction, Kaiser Engineers, isn't it? I am not sure of that.

Mr. HENRY J. KAISER. I think that is gypsum.

Mr. EDGAR F. KAISER. It is Henry J. Kaiser Co.

Senator BYRD. Carried under another name?

Mr. EDGAR F. KAISER. For the gypsum business.

Senator BYRD. This is from the Office of Defense Mobilization. The gypsum is in a separate place.

Mr. EDGAR F. KAISER. That will be a subsidiary producing gypsum board down in Mexico probably.

Senator BYRD. That is the Kaiser Co.?

Mr. EDGAR F. KAISER. Raw material.

Senator BYRD. Any company that you control, even if you don't have the majority stock, if you are controlling it, that is what I mean. In some companies the board of directors control it and don't always own the stock.

Foothill Electric Corp.

Mr. EDGAR F. KAISER. That is controlled by Henry J. Kaiser Co.

Senator BYRD. Glazier Sand & Gravel Co.?

Mr. EDGAR F. KAISER. The same. Controlled by Permanente Cement.

Mr. HENRY J. KAISER. In which we have a 20-percent interest.

Senator BYRD. Do you control it? The companies are controlled by 20 percent sometimes. Do you control the operation of it?

Mr. HENRY J. KAISER. I am sure if you were at a board of directors meeting you would be convinced that we don't control it.

Senator BYRD. Gypsum Carrier? Is that your company?

Mr. EDGAR F. KAISER. That is Permanente Cement.

Mr. HENRY J. KAISER. That is 20 percent

Senator BYRD. Industrial Indemnity Co.?

Mr. EDGAR F. KAISER. We do control.

Senator BYRD. Iron Queen Mining Co.?

Mr. HENRY J. KAISER. That is a brokerage company.

Senator BYRD. You don't know all these companies? The Iron Queen Mining Co.?

Mr. EDGAR F. KAISER. That is Kaiser Steel.

Senator BYRD. Pacific Coast Cement Co.?

Mr. EDGAR F. KAISER. That is Permanente Cement.

Mr. HENRY J. KAISER. Twenty percent.  
Senator BYRD. Pacific Coast Steamship Co.?  
Mr. EDGAR F. KAISER. Permanente Cement.  
Senator SYMINGTON. Mr. Chairman, for a Democrat I would say he is in pretty good shape.  
Mr. HENRY J. KAISER. For a what?  
Senator BYRD. What about the Pacific Coast?  
Mr. EDGAR F. KAISER. Pacific Coast Steamship is a Permanente subsidiary.  
Senator BYRD. You have the Permanente Cement here also. What is that?  
Mr. EDGAR F. KAISER. That is the parent company of the cement company in which the Kaisers own about 20 percent interest.  
Senator BYRD. Do you control it?  
Mr. EDGAR F. KAISER. No.  
Senator BYRD. I don't know why they have it listed here. Permanente Steamship Co.?  
Mr. EDGAR F. KAISER. Same thing. It is a subsidiary of the Cement.  
Senator BYRD. Phoenix Bridge Co.?  
Mr. EDGAR F. KAISER. That is Kaiser Motors.  
Senator BYRD. Sierra Magnasite?  
Mr. EDGAR F. KAISER. That is Kaiser Steel, I think.  
Senator BYRD. West Willow Housing Development Co.?  
Mr. EDGAR F. KAISER. Kaiser Motors.  
Senator BYRD. That isn't all of them, is it?  
Mr. EDGAR F. KAISER. No, sir.  
Senator BYRD. Suppose you add the rest of them.  
Mr. EDGAR F. KAISER. All right.  
Senator BYRD. How many more are there? That is 13?  
Mr. HENRY J. KAISER. I think there are 25.  
Mr. EDGAR F. KAISER. He is talking about businesses, Senator. If you take the parent companies and all their subsidiaries, I don't know the answer.  
The CHAIRMAN. Will you furnish the committee a list of the companies which you do own or control, and those that are known as the Kaiser-Frazer or the Kaiser companies——  
Mr. EDGAR F. KAISER. We will.  
The CHAIRMAN. That you have an appreciable interest in, so that it will be known?  
Mr. HENRY J. KAISER. We have 32 hospitals and clinics in the Kaiser Foundation. Do you want that furnished?  
The CHAIRMAN. That is not a business, is it?  
Mr. HENRY J. KAISER. It takes a lot of time.  
The CHAIRMAN. It is not a business which you operate for profit?  
Mr. HENRY J. KAISER. It is a nonprofit corporation.  
Senator BYRD. Let's take those that you own 20 percent or over and give a list of them, and also the contracts that they had had with the Government since 1942, in dollars.  
Mr. EDGAR F. KAISER. That would leave out Kaiser-Frazer.  
Senator BYRD. Why would it leave it out?  
Mr. EDGAR F. KAISER. Because we only own 9½ percent of it.  
Senator BYRD. Do you control Kaiser-Frazer?



Mr. EDGAR F. KAISER. No.

Senator BYRD. Aren't you the president of it?

Mr. EDGAR F. KAISER. Yes. But only——

Senator BYRD. Who controls?

Mr. EDGAR F. KAISER. The board of directors.

Senator BYRD. Let's begin with Kaiser-Frazer.

Mr. HENRY J. KAISER. For example, one of the members of the board of directors of Kaiser-Frazer is general manager of Sears, Roebuck. If anybody controls him, I would like to know who it is. He is vice chairman of the board.

Senator BYRD. The chairman usually has a good deal of influence with the company.

Mr. HENRY J. KAISER. In the Kaiser-Frazer recent Willys' acquisition we increased our ownership. It had been 9½ up to that point. I would like to check it to be sure.

Senator BYRD. Start with Kaiser-Frazer and go up.

Mr. HENRY J. KAISER. All right.

Senator BYRD. Are there any that you own less than 9 percent of?

Mr. EDGAR F. KAISER. There might be. I don't think there is anyone that you listed, but in the other list there might be.

Mr. HENRY J. KAISER. Would you like to know how many hundreds of millions we saved the Government on the ships, over the other shipbuilders?

Senator BYRD. I want this list first. The other may be controversial.

Mr. HENRY J. KAISER. I will be glad to do that.

Senator BYRD. We may get that separately.

The CHAIRMAN. You will furnish such a list?

Mr. EDGAR F. KAISER. Yes, sir.

(Document referred to appears in appendix G.)

Senator BYRD. I want to get the tax amortization. This is not critical. Is the list I read a complete list of the same type of companies that you have a substantial interest or some control over?

Mr. EDGAR F. KAISER. Right.

Senator BYRD. If this is not a complete list, some \$420 million of tax amortization, please add to it, and do the same thing with the loans, and do the same thing with the amount of Government contracts beginning—what date would you suggest?

Mr. EDGAR F. KAISER. It depends on whether you want to take after the war. When you hit the war period you get into the merchant marine. We built 25 percent of the merchant marine.

Senator BYRD. Let us get it all. You can itemize it and it will get due consideration. I think the first loan, apparently, that the Reconstruction Finance Corporation made was to the Permanente Metals Corp. of Oakland, California. That was in 1941. Give a complete picture.

Mr. EDGAR F. KAISER. Yes, sir.

Senator BYRD. We want to be fair to you and we want to know all about it, so far as we are able to.

The CHAIRMAN. Senator Duff had a suggestion or question.

Senator DUFF. Yes, sir. I thought some of the complexities of this picture could be very simply resolved so far as concerns the C-119 by directing our attention primarily to two questions. (1) The details that Senator Byrd asked for a while ago, with supporting data. No. 2,

the supporting data or denial of that data to the statement made on the bottom of page 4.

That statement says that "The \$260,000 cost of Fairchild's was after Fairchild had the benefit of the Government-furnished plant free of cost, a large proportion of its tooling costs and plant rearrangement costs written off on previous contracts, and learning experience gained on over 800 aircraft of the same basic type."

Then it says that if K-F built 800 or more of this basic type of aircraft its costs would be \$260,000 or less. It seems to me that the answer to those two things with supporting data will give us the information, at least on the aircraft phase of it, and that if we confine our attention to that, we will get the answer on that particular subject.

The CHAIRMAN. It is 12:30 now. We have been in session for 2½ hours. The committee, if agreeable to the other members of the committee, will recess until 10 a. m. tomorrow morning.

(Whereupon, at 12:30 p. m., the hearing was adjourned, to reconvene at 10 a. m., Wednesday, June 24, 1953.)

## AIRCRAFT PROCUREMENT

WEDNESDAY, JUNE 24, 1953

UNITED STATES SENATE,  
PREPAREDNESS SUBCOMMITTEE No. 1,  
ARMED SERVICES COMMITTEE,  
*Washington, D. C.*

The subcommittee met, pursuant to adjournment, at 10 a. m., in room 212, Senate Office Building, Washington, D. C., Senator Styles Bridges (chairman), presiding.

Present: Senators Bridges, Duff, Byrd, and Symington.

Also present: Senator Beall; Fred Rhodes, chief counsel; James Anton, special counsel; and Harold M. Devlin, accountant.

The CHAIRMAN. The subcommittee will come to order. Before proceeding with the day's hearings, there is a matter which developed at yesterday's hearing upon which the Chair would like to comment. Certain accusations were made about some of the statements which have been given to this committee. Mr. Kaiser complained that they were untrue, by inference, at least. That is a very strong statement.

The data in question was submitted by the Air Force. The Air Force stated that these facts and figures were true. By his statement Mr. Kaiser seems to be disagreeing with the Air Force, and to be impugning what has been said.

In the interest of fairness, the Chair should state that after reviewing the record it appears that what Mr. Kaiser is complaining about is interpretation which the Air Force placed on the facts which it presented. Putting this another way, Mr. Kaiser is saying that he agrees with the facts presented by the Air Force, but he does not agree with the conclusions which they draw from these facts.

Mr. Kaiser is here to present his side of the story. Fairchild Corp. will also present theirs in due course. The committee will have to decide which is the correct interpretation of the facts.

The chair would like to say in passing that one of the great difficulties which we experience in conducting hearings of this kind is to stay on the subject. Although the building of ships and the operation of steel and aluminum plants is of general interest, our main concern is to proceed with the C-119 contract, and to determine what these planes have cost the American people. We would like to urge that Mr. Kaiser continue with his statement, and that the committee then have the opportunity to ask questions.

At yesterday's meeting the chair neglected to introduce a biographical statement of Mr. Edgar Kaiser and would like to put this in the record at this point.

(The biography of Edgar F. Kaiser is as follows:)

Mr. Edgar F. Kaiser was born in Spokane, Wash., on July 29, 1908. Was a student at the University of California from 1927 to 1930. He is president of the

Kaiser-Frazer Corp., Willow Run, Mich.; vice president of the Permanente Metals Corp.

He was formerly associated with the following: Construction superintendent of natural-gas line, Kansas to Texas, 1930 to 1932; shift superintendent Boulder Dam, Nev., 1932-33; administration manager of Columbia Construction Co., Bonneville Dam, Bonneville, Oreg., 1934-38; Consolidated Builders, Inc., Grand Coulee Dam, Wash., 1938-41; vice president and general manager of Shipbuilding Corp. and Kaiser Co., Inc., Portland, Oreg., and Vancouver, Wash., 1941-45.

The CHAIRMAN. Mr. Kaiser, if you will come up, we would like to have you proceed.

**TESTIMONY OF HENRY J. KAISER, CHAIRMAN OF THE BOARD OF KAISER MOTORS CORP., AND EDGAR F. KAISER, PRESIDENT OF KAISER MOTORS CORP.—Resumed**

The CHAIRMAN. We have a wire which it was requested be read at this hearing and put in the record. It is from Congressman Alvin E. O'Konski. It was sent from Wausau, Wis., at 8:49, June 23. It says:

Kaiser's statement before your committee that I represent one Eaton or other special interests is a fraud and fabrication of the worst order. I never saw the man. I don't know what he looks like. Don't know where he's from or any business he is connected with. Nor have I seen anybody representing him. Nor do I know anybody representing him. Kaiser's insinuation is irresponsible and childish. I would say he is desperate now that the people are finally waking up to his milking the Government operation.

Congressman ALVIN E. O'KONSKI.

That apparently is an answer to the statement which was made yesterday.

Mr. ANTON. In referring to the letters which were placed in the record yesterday regarding the Bridges' letter—and I refer particularly to the letter of February 19, signed by J. F. Cocks, a memorandum signed by Sidney C. Solomon on February 27, 1953, and a letter dated March 4, 1953, on unresolved items, signed by the vice president of Kaiser-Frazer Corp., Mr. S. A. Girard, and a letter dated March 25, 1953, signed by the contracting officer of the Air Force, Meyer J. Stoun, in reference to these four letters I would like to address this question to Mr. Edgar Kaiser.

On page 479 of the testimony yesterday this statement was made by Mr. Kaiser:

The fact is, our statement is true. Let's be frank about that. You fellows didn't uncover these letters. We gave you these letters and said, "Here is the evidence." There is no mystery about it. Have we ever withheld anything from you?

Do you affirm or disaffirm that statement?

Mr. EDGAR F. KAISER. I affirm that statement, that—I am sorry, I really didn't listen to the detail of it, but if I understand it, what I said there was——

Mr. ANTON. I will read it to you.

Let's be frank about that. You fellows didn't uncover these letters. We gave you these letters and said, "Here is the evidence." There is no mystery about it. Have we ever withheld anything from you?

Now I ask you, do you affirm or disaffirm that statement?

Mr. EDGAR F. KAISER. I affirm it.

Mr. ANTON. You affirm it?

Mr. EDGAR F. KAISER. Correct.

Mr. ANTON. On page 480 you also stated, in reference to these same letters:

I would certainly like to leave it clear that we brought the letters. They are on file.

You affirm that statement also?

Mr. EDGAR F. KAISER. That is correct.

Mr. ANTON. I beg the indulgence of the committee to consider this matter. Before the close of these hearings an Air Force official would like to testify regarding the method in which these letters were acquired.

Mr. EDGAR F. KAISER. Mr. Anton, the affirmation there is that in our detailed statement, which was filed with you prior to the opening of the hearings, we submitted those letters as part of this record.

Mr. ANTON. When did you submit that?

Mr. EDGAR F. KAISER. I believe Mr. Devlin came to our office, in accordance with a wire from the chairman, and received a rough draft of the detailed statement as soon as we could have it ready in order to meet the requirement that it be in advance of the committee hearing by 24 hours.

Mr. ANTON. Does that document contain these four items?

Mr. EDGAR F. KAISER. The four items? It contains the letters I referred to.

Mr. ANTON. The letters you referred to were the four letters.

Mr. EDGAR F. KAISER. I was referring to the letter written by the auditor, the assistant comptroller, Mr. Cocks, and the answer from the Air Force plant representative.

The CHAIRMAN. Will you go ahead, Mr. Kaiser? Later on we will call the representative of the Air Force to testify on this matter as to how the committee procured the letters.

Mr. EDGAR F. KAISER. I would like to file, if I might, Mr. Chairman, my original draft which I wrote, of this letter which was published in the papers, which contained the statement, "Not charged to Government contracts."

The CHAIRMAN. It will be received.

Mr. ANTON. Is that for the file?

Mr. EDGAR F. KAISER. Yes.

The CHAIRMAN. Mr. Kaiser?

Mr. HENRY J. KAISER. When this committee does look closely into Fairchild's record, it will find that the two cases are in no way comparable, and that the facts do not fit the impressions that have been created.

Next, in view of your news release that President Boutelle, of Fairchild, would also be invited to testify today, I feel compelled to make some statements about the competitive fight being waged by Fairchild against our company. Should any member of this committee be under the impression that you are not being asked to intervene in a competitive fight, let me read to you a short paragraph from Fairchild's last annual report, in which Mr. Boutelle said:

Management was opposed to the program under which Kaiser-Frazer Corp. was given a contract to produce C-119 aircraft at Willow Run, Mich., although at the time this decision was deemed to be merely an effort to broaden the potential for the production of aircraft during the then existing state of national emergency. Since that time, Kaiser-Frazer Corp. has acquired effective control of Chase Aircraft Co., which is a potential competitor of the corporation. Your company

has thus been in the unfortunate position of having been compelled to educate and train an organization which is preparing to produce a competitive product. This necessarily has been a matter of grave concern to your management, and it is impossible to evaluate how much this situation has cost the corporation. Now that procurement policies and programs are being reexamined, it is to be hoped that the unwarranted decisions of prior years will not be repeated and that past mistakes will be rectified rather than continued.

We feel that this last statement can only be interpreted in one way—as a Fairchild plea that the Air Force contract with Kaiser-Frazer be canceled and turned over to Fairchild.

Further proof of Fairchild's goal is the press release issued by Senator Beall of Maryland—Fairchild's home State—on June 12, the same day the committee decided to terminate its hearings. Senator Beall announced he had written to the Secretary of the Air Force, asking him to cancel the contract with Kaiser-Frazer and award it to Fairchild.

Fairchild's bitter opposition has been manifest ever since the C-119 contract was first awarded to us. In its latest news release, issued on June 17, Fairchild erroneously claimed that testimony before this committee "brought out that there was no complaint whatsoever about Fairchild's cooperation in its entire association with Kaiser." It then quoted the testimony of Mr. McCone to this effect on the first day of the hearings, June 2.

On June 3, Mr. McCone testified again, and corrected the very testimony quoted in Fairchild's release of June 17. He said he had been told by Edgar Kaiser that "there was some dragging of the feet on the part of Fairchild in rendering technical assistance to Kaiser-Frazer." Pages 53-54 of the hearings. This is clear evidence of Fairchild's deliberate attempt to mislead the public by quoting only part of the testimony. Similar protests of Kaiser-Frazer about Fairchild's lack of cooperation were mentioned by General Cook at pages 86-87 of the hearings.

Moreover, on December 18, 1952, Edgar Kaiser wrote to the Commanding General of the Air Materiel Command, as follows:

In surveying present as well as past operations, we believe consideration should always be given to the situation that arose as a result of the technical assistance agreement. For instance, the detailed drawings furnished could not be checked for accuracy against the airframe drawings because the latter drawings were not up to date. Likewise, there were errors in other technical data furnished, as well as long delays in furnishing some of the drawings, and complete failure in other cases to give the required information. We believe that some of these occurrences were unavoidable. On the other hand, had the technical assistance contractor expended as much effort in performing its agreement as it appears to have in connection with public releases and the building up of a record critical of Kaiser-Frazer, our task would have been greatly simplified.

Let me illustrate some of the problems that arose in connection with information furnished by Fairchild under the technical assistance agreement.

We were advised, on a number of occasions, by Fairchild personnel, that we were not maintaining proper tool control records or quality control records, and that our procedures were not in accordance with standard aircraft manufacturing procedures. We gave careful consideration to Fairchild's recommendations and, in some cases, we adopted them—and, in others, we did not, because in our judgment, their suggestions were not applicable to our circumstances. I am advised that Fairchild's technical assistance representatives located at

Willow Run were instructed to keep detailed reports on specific instances of Kaiser-Frazer's errors and mistakes—all for the purpose of building a record against Kaiser-Frazer.

There are two basic fundamentals to be considered:

(1) What was the attitude? Was Fairchild really trying to help Kaiser-Frazer build C-119's? Certainly the record is clear that they were bitterly opposed to Kaiser-Frazer coming into the program, and their public-relations policy was to stimulate criticism of the Kaiser operation. This has not only been damaging to our reputation, but it has created a tremendous problem of morale within our own organization. It has likewise been burdensome to the Air Force.

(2) What was the condition of the information furnished by Fairchild to Kaiser-Frazer? The tooling templates and the tooling drawings from which Kaiser-Frazer had to build the tooling did not reflect, in many cases, the latest changes that had been made by Fairchild in the C-119C. As a result, many of the tools we built from these templates and drawings would not produce the correct parts.

Fairchild tooling designs, especially for the major assemblies, were very incomplete. Many of Fairchild's subassembly-tooling fixtures were built on Fairchild's production floor without any design drawings. In some cases, Fairchild had found that the original tools, which it had built for its own use, were unsatisfactory. These tools had to be completely redesigned and reworked on Fairchild's production floor—but unfortunately the final information was not incorporated in Fairchild's tool drawings.

When we built our tools from Fairchild's drawings, the results did not match the actual tools on Fairchild's floor. The aircraft parts we made from these tools would not fit together in the assembly. Fairchild, in an attempt to correct this situation, made tooling sketches, which failed to show dimensions. These were forwarded to Kaiser-Frazer and caused further unnecessary tool-building problems.

This situation was further complicated by the change from the C-119C to the C-119F. We had to proceed with C-119C tooling, incomplete as it was, and rely on making the "F" changes as soon as the information was received from Fairchild. Otherwise, the program would have been further delayed.

In many cases, there were no templates and no drawings available for tool building. Finally, because we could not get the information from Fairchild, we had to send a group of engineers to Hagerstown to photograph the tooling in use and take dimensions so as to prepare drawings.

Fairchild was unable to furnish duplicate templates. Fairchild recommended two vendors to duplicate its templates for us. The duplicate templates proved to be inadequate. Tools built with these templates were not usable without rework. A large amount of rework on the templates was also required to build proper tooling.

A recent review indicates that the usable portions of the Fairchild-furnished tool design, under the technical assistance agreement, represented approximately one-third of that which was required. The remaining two-thirds had to be developed and designed by Kaiser-Frazer. This situation occasioned various meetings at Willow Run and Hagerstown, at which time the local Air Force representatives were in attendance, and Fairchild and the Air Force were informed that this situation was seriously affecting Kaiser-Frazer's delivery schedule.

Former Fairchild employees who have since transferred to Kaiser-Frazer, with Fairchild's full approval, state that Fairchild's performance under the technical assistance agreement was materially affected by its lack of sympathy with the program, and its expectation that, if the Kaiser organization did not succeed in building the C-119, the work would be transferred to Fairchild. One such former Fairchild employee quotes his superior at Fairchild as saying: "We are not interested whether or not Kaiser ever builds a C-119 aircraft."

Mr. ANTON. Mr. Kaiser, at this point—

Mr. HENRY J. KAISER. May I finish, Mr. Chairman? I would be glad to answer this after I finish.

Mr. ANTON. We should know who the employee is.

Mr. EDGAR F. KAISER. In the detailed statement there is a supporting statement which gives the name of the employee and his affidavit.

Mr. ANTON. Does it indicate how many employees that are transferred? It is used here as "employees."

Mr. EDGAR F. KAISER. Correct.

Mr. ANTON. Does it indicate how many employees and who they are?

Mr. EDGAR F. KAISER. Those that we are quoting here in this report are indicated. There is no statement here as to how many. We can furnish you how many.

The CHAIRMAN. Will you furnish it?

Mr. EDGAR F. KAISER. Surely.

(Information referred to is as follows:)

There follow the names of Kaiser-Frazer's employees who were previously employed by Fairchild. Some of these employees transferred directly from Fairchild to Kaiser-Frazer, and each such case is indicated by the letter "(D)" preceding the name of the employee. In all other cases, the employee was employed by another company between the date he left Fairchild and the date he joined Kaiser-Frazer. In every case where an employee transferred directly from Fairchild, Kaiser-Frazer obtained clearance from Fairchild for hiring the employee.

- |                      |                         |
|----------------------|-------------------------|
| 1. C. F. Baker       | 8. (D) W. A. Moelk      |
| 2. (D) J. L. Barton  | 9. (D) T. F. Riddle     |
| 3. (D) Bob Debenport | 10. (D) W. F. Sherbrook |
| 4. John S. Farris    | 11. J. S. Steele        |
| 5. W. Gillette       | 12. J. L. Strait        |
| 6. A. N. Grimm, Jr.  | 13. (D) R. A. Ward      |
| 7. (D) C. Mayor      | 14. J. F. Wise          |

Mr. HENRY J. KAISER. It is impossible to estimate how much all this cost our company and the Government, and how many months of time it delayed our whole program. It illustrates the impossibility of comparing Fairchild's costs per plane with Kaiser-Frazer's costs, when a large portion of Kaiser-Frazer's costs result directly from the fact that Fairchild did not supply us with adequate and up-to-date engineering data from which to make our tools.

Fairchild's opposition has continued to the present date. We cannot escape the conclusion that Fairchild's objective is to bring about the cancellation of our contract with the hope that the work will be transferred to Hagerstown.

It is a serious thing for one company to attempt to persuade a customer—in this case the Government—to cancel its contracts with another company. The courts recognize that such action is a legal wrong.



Mr. ANTON. In view of all this that you have just said, was there an official documentation of any record whereby Kaiser-Frazer complained to any official in the Air Force officially about this in the past 2 years?

Mr. HENRY J. KAISER. I just read it.

Mr. ANTON. Could you furnish the committee with copies of the documents wherein you made the complaints?

Mr. HENRY J. KAISER. Yes.

Mr. ANTON. The documents are what the committee is interested in.

The CHAIRMAN. Will you furnish the documents?

Mr. EDGAR F. KAISER. Yes, we will.

Mr. HENRY J. KAISER. It is interesting to note the parallel between the present situation at Willow Run and the World War II situation faced by Ford at Willow Run, as the second source for the Consolidated B-24 bomber. The following is taken from an official Air Force report published in August, 1946, entitled "B-24 Construction and Production," prepared by the Industrial Plans Section, Logistics Planning Division, of the Air Materiel Command:

2. At least until the outbreak of war gave unmistakable urgency to the program, Consolidated was resentful of Ford's entry into B-24 production and did not go out of its way to be helpful (p. 26).

5. The data with which Consolidated had been building a limited number of B-24s was not sufficient for Ford's purposes. Consolidated had built the first Liberator in the amazingly short time of 9 months. It accomplished this feat by resorting to shortcuts and shop engineering and allowing production engineering to lag. Thus, the engineering data turned over to Ford often were incomplete and out-of-date. Furthermore, Consolidated used fractional drawings while the entire Ford organization was accustomed to using decimal drawings; Consolidated with experienced shop men and limited production did not always make drawings in the detail required by Ford. As a result Ford was obliged to do considerable redrawing and had to completely re-loft the airplane before getting straightened away on its preproduction task" (p. 26).

At the close of 1942, about 22 months after project approval, Willow Run's best production was 11 airplanes a month (p. 30).

It should be noted that Ford encountered difficulties even under conditions of all-out war and under orders to produce the maximum possible number of planes. We are producing C-119s in time of peace, under a stretched-out preparedness program, keyed to large-plant capacities and low-production rates. As an Air Force spokesman put the matter, according to an NEA column published December 9, 1952:

The extra cost for each Boxcar also pays for a great deal of standby capacity. When the Kaiser contract is completed, if a crisis should arise, the plant there would be capable of turning out 250 planes per month. The Fairchild plant alone could never do this.

It is impossible to separate the cost of reactivating the Willow Run plant from the cost of building the 159 C-119 planes. The Willow Run plant and the adjacent airfield cost nearly \$100 million to build, more than 10 years ago. In today's dollars, these facilities would cost almost \$200 million to replace.

Mr. ANTON. Mr. Kaiser, will you inform the committee what you paid the Government for that plant?

Mr. HENRY J. KAISER. This \$100 million?

Mr. ANTON. You say you have—

Mr. HENRY J. KAISER. Yes, we will give you that.

Mr. EDGAR F. KAISER. Let us not draw that comparison because

we did not buy the airfield and the attendant facilities that go with it that are in use in this figure that is quoted here.

Mr. ANTON. What is the value of the airfield?

Mr. EDGAR F. KAISER. I would like to refer back to the records. We can furnish you that.

Mr. ANTON. What was the acquisition value at the time you purchased the plant?

Mr. EDGAR F. KAISER. The purchase price was, if I recall correctly, \$15 million some-odd thousand.

Mr. ANTON. \$100,000?

Mr. EDGAR F. KAISER. That is correct.

Mr. ANTON. How much of this purchase price have you paid to date?

Mr. EDGAR F. KAISER. Approximately \$3 million plus the interest. The total of interest will run about \$21 million.

Mr. ANTON. When was the last time you made a payment on the principal?

Mr. EDGAR F. KAISER. I do not have the exact date.

Mr. ANTON. Did you make a payment on the principal in 1952?

Mr. EDGAR F. KAISER. May I answer it this way: The V-loan agreements, when the private banks put up the money under the V-loan, required a restriction—they required it, not us—that payments be in a standby condition until the termination of the contract or the V-loan, whichever should occur at the earlier date. So there is a standby on that at the request of the private banks on the V-loan handling this contract.

Mr. ANTON. Could you tell the committee approximately how much interest you paid since the V-loan agreement was reached in March of 1951?

Mr. EDGAR F. KAISER. Yes, I can. We can furnish it exactly. (Statement referred to is as follows:)

The interest paid by Kaiser-Frazer since March 1951, on the purchase money mortgage held by General Services Administration on the Willow Run plant has amounted to \$978,480. Interest is payable annually on December 1 of each year, and since the 1952 payment an additional \$244,620 has been accrued through May 1953. The total accrued interest expense from March 1951 through May 1953 is \$1,223,100.

Mr. ANTON. You were asked a question yesterday concerning the amount of depreciation which the Government is paying you under this contract? Have you that figure now?

Mr. EDGAR F. KAISER. I have to quote it from memory. I think it is approximately a million and a half.

Mr. ANTON. That would amount in the past 2½ years under the contract to about \$600,000.

Mr. EDGAR F. KAISER. That sounds about right.

Mr. ANTON. You are paying about \$450,000 in interest to the Government.

Mr. EDGAR F. KAISER. I did not give you a figure on interest.

Mr. ANTON. What interest are you paying on this \$12 million? What percentage?

Mr. EDGAR F. KAISER. I said I would be glad to furnish it.

Mr. HENRY J. KAISER. Mr. Chairman, we will furnish that exactly.

Mr. ANTON. What percentage are you required to pay on the \$12 million principal that you still owe the Government?

Mr. EDGAR F. KAISER. I have asked to furnish the information rather than try to remember it. I have given you what I could remember.

Mr. ANTON. According to the committee files the GSA indicates that the interest amounts to \$450,000 a year that is being paid on this plant. In view of the fact that you are paying this \$450,000 interest to the Government for this building, and you are receiving back under this contract something like \$600,000 in depreciation, what would your comment be on that? It appears to the committee that the Government is paying you more than \$200,000 a year for the use of this plant.

Mr. EDGAR F. KAISER. On the assumption that the figures you gave are correct—and I do not dispute them, I just have not checked them—I think my first statement covers it. The stipulation requiring the standby was a stipulation made by the private banks. We did not ask the RFC to finance this. We went to private banks, we were able to finance it at a standard procedure with the guaranty of the V-loan. This was their requirement, understand, not ours. We did not set up this calculation that I think you are trying to say says we got some more. That was not our doing.

The CHAIRMAN. Mr. Henry Kaiser testified that the Willow Run plant and the adjacent airfield cost nearly \$100 million to build 10 years ago, and these facilities in today's dollars would cost \$200 million to replace.

Mr. HENRY J. KAISER. Yes, sir.

The CHAIRMAN. Will you furnish us, one, as far as you know the segregation and cost between the airfield and the plant?

Mr. HENRY J. KAISER. We will.

The CHAIRMAN. Secondly, the exact amount you paid for it. Thirdly, the amount you paid the Government for interest, and the rate of interest you pay?

Mr. EDGAR F. KAISER. Yes, sir.

Mr. HENRY J. KAISER. We would like to furnish at the same time the comments that were made by others that it was a white elephant on the part of the Government and they were glad to get rid of it.

(The statement referred to follows:)

According to the Quarterly Progress Report, War Assets Administration, fourth quarter 1948, the original wartime cost to the Government of that portion of the Willow Run facilities purchased by Kaiser-Frazer was \$42,800,000.

These facilities were leased to Kaiser-Frazer in November 1945. The initial term of the lease, as amended, was for 6 years, with options in Kaiser-Frazer to renew for additional periods of 14 years, or a total of 20 years. War Assets Administration had appraised the plant in September 1946 at \$14,824,624. In October 1948 Kaiser-Frazer offered to purchase the plant for this amount. This offer was rejected on the ground that increases in construction costs since 1946 should be reflected in the current valuation. After further negotiations, an agreement was reached, effective December 1, 1948, for the purchase of the plant at a price of \$15,100,000, payable 10 percent down and the remainder in 20 annual installments. The purchase price represented 35.3 percent of the original acquisition cost. This compared very favorably with the price received by the Government on the sales of other surplus plants to automotive companies, and exceeded the average percentage of the original cost received by the Government on all sales of surplus industrial plants in 1949, 1950, 1951, and 1952.

The current appraisal of the present-day replacement value of the Willow Run facilities sold to Kaiser-Frazer is estimated to be \$50,398,000. This figure is based on the most recent valuation of the Kaiser-Frazer properties conducted by the independent engineering firm of Coverdale & Colpitts as of December 31, 1951, showing a net present-day physical value after depreciation of \$52,200,000 for

these facilities as of December 31, 1951, less additional depreciation from January 1, 1952, to date, based on present-day physical value, of \$1,802,000.

The acquisition cost of Willow Run facilities not sold to Kaiser-Frazer Corp., including the airfield, hangars, aircraft machinery, etc., is believed to be \$53,687,000. This figure is based on an Air Force report entitled "Ford Motor Co., Willow Run Bomber Plant, Ypsilanti, Mich., B-24, Construction and Production Analysis, Prepared by: Industrial Plans Section, Logistics Planning Division, Plans (T-5), Air Materiel Command, Army Air Forces, Published August 1946, Field Survey Made June 1945." This report states on page 13 that the total investment of Defense Plant Corporation in the Willow Run facilities was approximately \$96,487,000. Deducting the \$42,800,000 representing the acquisition cost of the facilities purchased by Kaiser-Frazer, the acquisition cost of the remaining facilities appears to have been \$53,687,000.

The rate of interest paid by Kaiser-Frazer on the Willow Run note and mortgage is 4 percent, the regular rate charged by War Assets Administration on similar sales. The amount of interest paid by Kaiser-Frazer from December 1, 1948, to date is \$2,038,500. Interest is payable annually on December 1 of each year, and the amount of interest accrued since the 1952 payment is \$244,620. Thus, the total amount of interest paid and accrued on the Willow Run purchase to date is \$2,283,120, through May 31, 1953.

Mr. HENRY J. KAISER. The cost of reactivating Willow Run for aircraft production was substantial. Existing automotive operations had to be relocated; new tools had to be bought and installed.

In World War II, the plant turned out B-24 bombers at a rate in excess of 400 a month, and can produce cargo planes at better than 500 per month; yet the plant is now producing only 159 planes at a contract schedule rate which never climbs higher than 12 per month.

Who can deny that, under these conditions, the Government is really purchasing capacity at Willow Run—not just 159 planes?

Your committee must bear in mind that, when we entered into this contract, there was every reason to believe it might very shortly become an all-out operation. Had that been the case, the Air Force would have been praised for its foresight and judgment in developing the tremendous capacity of Willow Run.

The current international situation is certainly one that demands preparedness. I want to reemphasize that the defense of America depends on its ability to produce large quantities of military equipment on a moment's notice when the emergency comes. This can only be done if the capacity to produce is in being before the emergency.

In his appearance before you, General Cook was asked to make comparisons between our costs and Fairchild's costs. He repeatedly stated that, to make such comparisons was inequitable, because the two situations are not comparable.

At page 287 of the transcript, General Cook testified that every effort has been made to hold down costs at Willow Run, but that this task had been made difficult due to the constant reprogramming and replanning of Air Force production schedules.

He must have had this reprogramming and replanning in mind when he stated that he was disappointed with the performance of Kaiser-Frazer's operations, because the reprogramming and replanning have been important factors preventing more rapid reduction of costs.

We also are disappointed that our operations to date have not yet permitted us to make the outstanding record on speed of delivery and low cost that is characteristic of our production operations.

Mr. ANTON. At this point I think it would be appropriate to put General Cook's full statement in, since the inference that is drawn here is that this was due to reprogramming and replanning.

The CHAIRMAN. General Cook's statement is:

Mr. Chairman, members of the committee, before completing my testimony I would ask the privilege of placing this brief statement in the record.

May I assure the committee that the Air Force and myself personally are anxious to present all figure and facts as requested by the committee as soon as possible.

To that end the record of these hearings is being studied and will be studied.

Under conditions as they were and are, I believe it was right for the Air Force to rush the establishment of a second source for the C-119 airplane; and I know that any fairminded person will agree it was only natural for the first planes produced from this new second facility to have cost more than those planes which were coming from the previously established facility.

The margin of that difference, however, is another matter; and one we have been looking into with apprehension and regret.

Our records show that the original estimated contract cost for the C-119 from the Kaiser-Frazer facility was some \$840,000 per plane on a lot of 200 planes. This figure included roughly \$130,000 per plane for tool amortization cost; and \$250,000 per plane for subcontractor buildup.

It is our understanding now, however, that the current estimated cost by the contractor for each of these planes is over \$1,200,000 with a strong possibility that that figure will be further increased. The Air Force is disappointed, therefore, in the performance of the Kaiser-Frazer operation.

We have been attempting to hold these costs down to the best of our ability. That has been somewhat difficult because of the constant reprogramming and replanning the Air Force has been forced to undertake during recent years.

In consideration of the cost of this operation I would respectfully request that the performances of the some two dozen other airplane facilities now producing for the Air Force be given that consideration by the committee which the committee feels proper.

The Air Force appreciates the interest of this committee in this matter and we will do our best to keep all production costs to a minimum.

We believe that our airplanes in the future will be purchased at greater value to the taxpayer as a result of the committee's interest.

Thank you, Mr. Chairman.

Mr. EDGAR KAISER. May I read one further bit from page 236 of General Cook's statement?

The CHAIRMAN. Certainly.

Mr. EDGAR KAISER (reading):

In conclusion, there can be little comparison between two contractors, one operating a large plant at a low rate and the other a small plant at a higher rate; one experienced and in going production, the other inexperienced and requiring tooling and training; one preparing for a high peak rate of production as mobilization insurance, the other already in the process of achieving its peak and a considerably lower peak; each with the varying concepts of tooling, overhead and management common to their particular industry.

Under the Kaiser contract, the Air Force set out to create new productive capacity and insurance both for a growing Air Force and for mobilization reserve and not merely a specific quantity of aircraft.

Because the original quantity has dwindled and production has extended over a longer period of time, the costs per unit necessarily increase and the costs do not proceed as far down the learner's curve as they would with additional volume.

But this is recognizable as part of the cost of buying new capacity.

Mr. HENRY J. KAISER. The Air Force is on record that our performance is steadily improving. Here is an April 23, 1953, report of a survey team who carefully reviewed our operations at Willow Run.

1. Management:

It is evident that all necessary functions and controls are now present or under way for a well-balanced, aircraft production organization.

2. Tooling:

While the entire tooling situation has not yet been completely solved, high credit is due this department for the record included herein. It is believed that within 60 days from the date of this report, the tooling department of Kaiser-Frazer will function on a par with the best in the airframe industry.

3. Planning and material control:

The material control situation, generally speaking, is in excellent shape \* \* \* this entire group is being efficiently directed, and no material trouble areas have been uncovered at any time by this survey team.

4. Production control:

It can now be stated that Kaiser-Frazer has a sound production control program underway, which is built around an IBM system.

5. Scheduling:

It is the opinion of the survey team that they (the scheduling department) have made—and will continue to make—material progress.

The quotations above are taken from the final report of a manpower utilization survey conducted by the Air Force at Willow Run in three phases, from November 24 through December 18, 1952; from January 12 through January 24, 1953; and from April 13 through April 23, 1953.

This survey was conducted by a survey team from the Air Materiel Command, headed by Mr. Guy A. Whitcomb, Chief Labor Utilization Section, Industrial Manpower Branch, Industrial Resources Division, Headquarters, Air Materiel Command, United States Air Force, and Mr. W. S. Bagley, industrial specialist, Labor Utilization Section, Industrial Manpower Branch, Industrial Resources Division, Headquarters, Air Materiel Command, United States Air Force.

6. Manufacturing and tabulating:

The administration of this department is being effectively managed.

7. Current production status:

With the supporting functions such as production and tool control, engineering and tooling, well-organized and performing improved service with the production line, it is believed that the present rate of increase if sustained will be adequate to support the contractor's C-119 and C-123 production program. \* \* \* If the present realization of basic work orders is maintained, it is, therefore, believed that this contractor can make the program schedules.

Mr. ANTON. Is this a classified document?

Mr. EDGAR F. KAISER. Not to our knowledge, Mr. Anton. We checked that before we included it.

Mr. HENRY J. KAISER. During the hearings, General Cook was questioned at length about the differences between cost-plus-fixed-fee contracts and fixed-price contracts.

When asked which type he would prefer, he said a fixed-price contract without redetermination. He added, however, that it was virtually impossible to persuade aircraft manufacturers to take fixed-price contracts without redetermination.

We have considered General Cook's testimony carefully, and, in order to settle any further controversy as to the productive ability and efficiency of our company, the Kaiser organization is prepared to negotiate a fixed-price contract without redetermination—

Mr. ANTON. Is this an admission that the cost-plus-fixed-fee contract is an evil thing?

Mr. HENRY J. KAISER. Are you trying to put those words in my mouth?

Mr. ANTON. No. I am asking you a question.

Mr. EDGAR F. KAISER. I think you cover it a little later.

Mr. ANTON. Are you prepared to answer the question?

Mr. HENRY J. KAISER. I am not prepared to answer in general such a question as that, and you know that it is a loaded question.

Mr. EDGAR F. KAISER. I would like to answer it.

Mr. HENRY J. KAISER. You answer it.

Mr. EDGAR F. KAISER. Cost-plus-fixed-fee contract is not an evil thing. It is a necessary thing to have in order to bring in new productive capacity, and if you took the cost-plus-fixed-fee type of contracts out, I think you would materially damage the Air Force program.

I believe in the fixed-price type. I offered to perform these contracts on a fixed-price basis. That is in the record and I will file those letters with this committee.

The CHAIRMAN. Go ahead.

Mr. HENRY J. KAISER. We have considered General Cook's testimony carefully, and in order to settle any further controversy as to the productive ability and efficiency of our company, the Kaiser organization is prepared to negotiate a fixed-price contract without redetermination for the completion of the C-119 work, provided that similar arrangements are negotiated for the prime contract on the C-123B assault transport. We are so advising the Air Force.

Senator SYMINGTON. You are the only manufacturer, aren't you, of the 123-B?

Mr. EDGAR F. KAISER. That is correct.

Senator SYMINGTON. You own 49 percent of the stock?

Mr. EDGAR F. KAISER. That is correct; of Chase Aircraft.

Senator SYMINGTON. And they control the patents on the C-123B?

Mr. EDGAR F. KAISER. No, sir.

Senator SYMINGTON. Who does?

Mr. EDGAR F. KAISER. All the military rights are retained by the Government.

Senator SYMINGTON. The only people who have the 123B—

Mr. EDGAR F. KAISER. Are Chase Aircraft.

Senator SYMINGTON. If you are the only manufacturer of those contracts, then in effect on a fixed-price you could charge whatever you thought you would like to charge on the 123?

Mr. EDGAR F. KAISER. I have never found it that way in negotiating with the Air Force.

Senator SYMINGTON. And make it up on the competitive price on the C-119, could you not?

Mr. EDGAR F. KAISER. No, because the C-119 phases out as the 123B comes in. You could not do it anyway.

Senator SYMINGTON. Let me put it this way: In the first place, the C-119 may not phase out if they wanted more C-119's.

Mr. EDGAR F. KAISER. That is possible.

Senator SYMINGTON. When companies I was associated with made electric motors we had the problem of our competitors having a monopoly of the lamp contracts.

They could sell the electric motors to our customers at low cost and then get their profits back in what might be considered more than normal profits on the lamp contracts.

Mr. Kaiser, if you were the only bidder on the C-123 and you premised quoting a fixed-price on the C-119, isn't it fair to say that that isn't at all comparable to an offer of just agreeing to meet competition on the C-119?

Mr. EDGAR F. KAISER. No, sir, I don't think that is right for two reasons.

Senator SYMINGTON. Just one more question and then I would like to listen to you.

If that isn't the reason, why would you want to pool the two together, knowing that you could, as the only manufacturer of the C-123, take 100 percent profit on the C-123 and 10 percent, 20, 30 or 40 percent loss on the C-119, and still be ahead in profits on your net Government price?

Mr. EDGAR F. KAISER. First, let me tell you that that would be a very dangerous thing to do. The incentive is all to do just the reverse because if we gave them, as you are suggesting, if I understand it—and I also say they would not accept it—but assume the condition; if you gave them a high price on the C-119 to cover the price on the C-123—

Senator SYMINGTON. If you gave them a low price on the 119 to cover the price on the 123's.

Mr. EDGAR F. KAISER. Then the answer to that—

Senator SYMINGTON. You have no competition on the C-123, so if you have a fixed-price you fix the price yourself if they buy the ship.

Mr. EDGAR F. KAISER. You would never make it with the Air Force in the first place. They are a tough trader when it comes to negotiating.

Senator SYMINGTON. I agree with you that at times the cost-plus-fixed-fee contract is a good contract. I think you will agree with me that your offer to quote a fixed price on the C-119 does not mean anything if you premise it on the basis that you have the right to fix a price on an airplane which you are the only person allowed to build.

Mr. EDGAR F. KAISER. Assume that condition happened. They would pick you right up on renegotiation.

Senator SYMINGTON. You are picked up on renegotiation on any basis.

Mr. EDGAR F. KAISER. Right. So the Government couldn't get hurt if that happened, which I say won't happen.

Senator SYMINGTON. Would you continue your production on the C-119?

I don't question anything except I don't see what you are offering if you offer a fixed-price on the C-119 and premise it by asking for a fixed-price on an airplane that you are the only supplier of.

Mr. EDGAR F. KAISER. The real answer to that is that you have to do it. You cannot operate within one plant, on any satisfactory basis, a cost-plus-fixed-fee-contract and a fixed-price.

That is why the Air Force—

Senator SYMINGTON. The reason the point is especially pertinent is that the Air Force opposed your interest in the C-123 according to the testimony here, on the grounds that it violated the spirit of the agreement because they felt were you producing both the C-119 and the C-123 that you had a stranglehold on all this type and character of airplane that the Government was going to buy.



They felt that you could underquote the only competitor by getting a better price on the C-123, and it was for that reason that the Under Secretary for the Air Force, some representative of the Air Force—it is in the testimony—felt that you should not have gone into the C-123 business.

That is why I raised this point.

Mr. EDGAR F. KAISER. I don't agree with you.

Senator SYMINGTON. It seems to be applicable to the position of the Air Force.

Mr. EDGAR F. KAISER. If I read the testimony of the former Under Secretary carefully, he says that he and Mr. Finletter made a commitment or gave assurances—I am not sure of the exact language—to Fairchild that the Kaiser-Frazer operation was a second source operation.

But he did not say that the Kaiser management made a commitment that they would not get into the aircraft business. He didn't say that. I want to first clear up that we did not violate any commitment.

Senator SYMINGTON. Let's get the record. My impression from the record is that he did feel, after you were given the 119 business, that you were not fulfilling the spirit of the agreement when you went into the 123 business.

Mr. EDGAR F. KAISER. No, sir.

Senator SYMINGTON. That only interests me because as a former manufacturer I say that your offer to go on a fixed-price with the C-119 doesn't mean anything if you premise it with the right to establish any fixed price you want on an airplane which you know the Government wants that you are the only supplier of.

Mr. EDGAR F. KAISER. I think we are going to keep at this.

Senator SYMINGTON. I will keep at it just as long as you want.

Mr. EDGAR F. KAISER. All right. First you can't have two different type contracts, a cost-plus and a fixed-price. You can—it is physically possible. But the argument—Mr. Anton here would be saying you charged all the work on the fixed-price one to the cost-plus, and we would be arguing it and nobody would understand the answer.

You ought to have the same type of contracts in the plant when you are doing both jobs at the same time.

Am I clear on that one?

Senator SYMINGTON. You are clear but I don't necessarily agree with it. I have operated plants where I have had cost-plus-fixed-fee contracts and fixed-price contracts on this same type of work.

In your plants, first you have the auditors of the service in question that you are serving and they decide, not you, what is cost and what isn't cost.

After you have finished that, the General Accounting Office comes in and reviews both your costs and the costs as estimated by the services. So you have a double check on any type of character of difference in cost, where the supplier, unfortunately sometimes for the suppliers, as I remember it, never has the final say.

I think the Government can protect itself under a plant operation which involves both fixed-fee contracts and fixed-price contracts.

Mr. EDGAR F. KAISER. I agree with that statement but I don't think it is a desirable thing to do, and you should avoid it if you can.

Back to this point about violating a commitment. I am very clear——

Senator SYMINGTON. I did not say that, Mr. Kaiser.

Mr. EDGAR F. KAISER. I know you did not say it.

Senator SYMINGTON. Then why do you go back to something I didn't say? I did say that the testimony of the Air Force was that they felt that your going into the C-123 was a violation of the spirit of the agreement.

Mr. EDGAR F. KAISER. They later said that was not the case as far as we were concerned. When you stop and think about it, I don't think that the Air Force wants to be on the record that it is making a deal with somebody that they can't go out and build another type of an aircraft.

What is that? That is monopoly. That is one thing we don't believe in in this country.

Senator SYMINGTON. On the other hand, the Air Force doesn't want to find itself in a position where, after they create you as a second source of supply and give you all the engineering help that they can get from the prime contractor, that you go out and get an additional plane which will make it possible for you to whipsaw the prime contractor.

Fairness works both ways, as I see it.

Mr. EDGAR F. KAISER. I think the Air Force is perfectly sound in saying, "You are a second source and the minute that the requirement goes down and we can work it out, the plane is going back home to the prime producer."

I think that is right. But I don't think the Air Force has got any right or that it is in the best interests of the Government to say, "You must agree, because you are a second-source person, that you won't build any new type of airplane, competitive or not."

Senator SYMINGTON. I go back to my point: If you control the 123B, and premise your agreement to go to a fixed-price on the C-119 by the fact you will get your price on the C-123, I don't think it means much in the way of an offer to get off of a cost-plus-fixed-fee contract.

Mr. EDGAR F. KAISER. Do you agree with the statement——

Senator SYMINGTON. Am I correct on that, Mr. Kaiser, Senior?

Mr. EDGAR F. KAISER. I would like to ask you what would be fair in order for the Air Force to get a fixed-price contract? I think I have recommended——

Senator SYMINGTON. I wouldn't know what to do. I am out of that field. I just read this statement and I think if you are the only people building the 123B that your offer to go to a fixed-price on the 119, provided they give you your price on the 123B, isn't a way of getting around a cost-plus-fixed-fee contract.

Mr. HENRY J. KAISER. We are planning to get into a cost-plus-fixed-fee contract on the 123B.

Mr. EDGAR F. KAISER. No. We are saying we would build on a fixed-price without redetermination.

Senator SYMINGTON. You don't have to go to a cost-plus-fixed-fee contract on the 123B if you are the only supplier.

Mr. EDGAR F. KAISER. You mean a fixed price?

Senator SYMINGTON. You don't have to go to a cost-plus-fixed-fee contract to protect yourself on the 123B if you are the only supplier.

Mr. EDGAR F. KAISER. We are already on it.

Senator SYMINGTON. But you don't have to go on it. You can have a fixed-price on the contract with redetermination and set it as high as you like.

Mr. EDGAR F. KAISER. What is our issue here?

I am getting confused.

Senator SYMINGTON. My issue is that what you in effect say is that you get off on a fixed-fee contract on the 119 provided they give you a cost-plus-a-fixed-fee contract on an airplane, the cost of which and the price of which, you control completely.

Mr. EDGAR F. KAISER. It was not put in as a trade or lever.

Senator SYMINGTON. Will you make the deal and leave it out?

Mr. EDGAR F. KAISER. Sure.

Senator SYMINGTON. You will make a fixed price on the 119 without the 123?

Mr. EDGAR F. KAISER. Certainly.

Senator SYMINGTON. I think that, from the point of the taxpayer, would be much better.

Mr. EDGAR F. KAISER. I think it is best—I do think it is wrong to have the two types of contracts. If that is the way the Air Force wants it, all right.

Senator SYMINGTON. I don't know what the Air Force wants. I want to cover that one point.

The CHAIRMAN. Proceed.

Mr. ANTON. The committee is interested in clearing up one point about the type of contract. I believe you made mention of the fact that the Air Force had requested that you go into a CPFF contract.

Mr. EDGAR F. KAISER. That is correct.

Mr. ANTON. The committee has in its possession a document from John Suchy, Jr., Procurement Assistant of the Aircraft Branch.

FEBRUARY 6, 1953.

Memo to: Mr. John Howland.

From: MCPPA, Mr. John Suchy.

Subject: AF33(038)-18481, Kaiser Manufacturing Corp., C-119 Airplanes.

Amendment No. 2 to KMC letter contract AF-18481 changed the type of contract anticipated to CPFF. This action was taken on the basis of KMC's request which was discussed with and approved by the Chief, Procurement Division. Findings and determination subsequently prepared confirmed the decision to contract on a CPFF basis.

The determination to contract on a CPFF basis was made shortly after the procurement was implemented on the basis of considering such factors as:

(a) Manufacturer building an item on which neither he nor the major subcontractors had previous experience.

(b) Variable quantitative and rate of delivery requirements.

(c) High starting load costs.

(d) Intermingling with commercial production.

Under these circumstances neither the Government nor the contractor was in a position to come up with a realistic "contract price," and the CPFF approach was considered to be the only fair solution. This permitted us to establish a residency at the contractor's plant to oversee the operations and pass upon the allowability of all costs incurred and charged to this contract by the contractor prior to reimbursements by the Government.

It was felt that in view of all the uncertainties the CPFF arrangement, rather than any other, would be in the best interests of the Government.

JOHN SUCHY, Jr.,

*Procurement Assistant of the Aircraft Branch.*

What would your comment be on that?

Mr. EDGAR F. KAISER. That was not our request and that is not correct.

Mr. ANTON. The document to which I referred and asked you if it is classified or not, I have in my hand and it is marked confidential.

Mr. EDGAR F. KAISER. That is a confidential stamp, corporatewise.

Mr. ANTON. The committee has had this declassified. I would also like to read from this on page 6.

Mr. HENRY J. KAISER. The confidential stamp is the company stamp, not the Government.

Mr. ANTON. This is an Air Force document.

Mr. HENRY J. KAISER. But we put on the stamp.

Mr. EDGAR F. KAISER. That is not a classified document, restricted or anything.

Mr. HENRY J. KAISER. Don't get the inference that the Air Force did it. They didn't do it. We did it.

Mr. ANTON. I will accept your explanation. On page 6:

All new foremen are required to attend the program "Basic management." Approximately 30 percent of the present supervision have not received this program but are being scheduled at the rate of about 20 per week.

Isn't it unusual after two and a half years that a program of basic management is now being instituted?

Mr. EDGAR F. KAISER. That is not correct.

Mr. ANTON. Page 7:

Advance program for supervision is now being developed. It is planned to schedule all supervision for this program as soon as all have received basic management.

On the same page:

A training program for tool engineers was recently—  
after 2½ years of the contract—  
was recently inaugurated which will improve the caliber of this critical group.

Mr. HENRY J. KAISER. Are you putting words in?

Mr. ANTON. I said "after 2½ years."

Mr. HENRY J. KAISER. Are you putting words in?

Mr. ANTON. I will quote it again.

Mr. HENRY J. KAISER. Quote the paragraph.

Mr. ANTON (reading):

A training program for tool engineers was recently inaugurated which will improve the caliber of this critical group.

On page 8:

A concentrated drive to eliminate "rackets"—  
whatever that is

within the plant has been conducted. Disciplinary action has been conducted and several violators have been separated from the company.

In view of the fact that after 2½ years this is such a wonderful operation, will you tell the committee what those rackets are and what these courses are that are now being instituted?

Mr. EDGAR F. KAISER. I have the document. The "rackets," in quotes here, refers in my opinion to numbers games and things of that type of which there has been a report and which has been going on in a number of plants in the Detroit area. In cooperation with

a number of counties and the township, we have been carrying on a cooperative drive to eliminate that completely.

That is not something peculiar to Kaiser-Frazer's plant. There has been much more written up on other plants.

The CHAIRMAN. Was the work on company time, Mr. Kaiser?

Mr. EDGAR F. KAISER. Yes; I think so, Senator. I think it is stated that there are people going around doing that.

Mr. ANTON. In all fairness, that document should be submitted for the record in toto.

Mr. EDGAR F. KAISER. I am perfectly agreeable to that.

The CHAIRMAN. It may be submitted.

(The document is as follows:)

KAISER MANUFACTURING CORP.,  
Willow Run, Mich., April 23, 1953.

I. MANPOWER UTILIZATION SURVEY—FINAL REPORT KAISER MANUFACTURING CORP., WILLOW RUN, MICH.

Requested by invitation of Mr. Edgar F. Kaiser, president, Kaiser Manufacturing Corp.

Authorized by commanding general, Air Materiel Command, Wright Patterson Air Force Base, Dayton, Ohio.

Purpose: Mr. Edgar F. Kaiser, president, Kaiser Manufacturing Corp., in a letter to the commanding general, Air Materiel Command, Attention: Maj. Gen. Mark E. Bradley, Jr., dated January 26, 1953, invited the survey team to return to Kaiser Manufacturing Corp., Willow Run, Mich., during the month of April 1953 for the purpose of reviewing each of the matters discussed during the original survey conducted November 24 to December 18, 1952, and the interim study which was conducted January 12-24, 1953.

Date conducted: April 13 to April 23, 1953.

The survey team: Guy A. Whitcomb, Chief, Labor Utilization Section, Industrial Manpower Branch, Industrial Resources Division, Headquarters, Air Materiel Command, United States Air Force; W. S. Bagley, industrial specialist, Labor Utilization Section, Industrial Manpower Branch, Industrial Resources Division, Headquarters, Air Materiel Command, United States Air Force.

GUY A. WHITCOMB,  
Chief, Labor Utilization Section, Industrial Manpower Branch, Industrial Resources Division, Headquarters, Air Materiel Command, United States Air Force.

W. S. BAGLEY,  
Industrial Specialist, Labor Utilization Section, Industrial Resources Division, Headquarters, Air Materiel Command, United States Air Force.

PREFACE

This final report constitutes a résumé of the findings made by the survey team of the Kaiser Manufacturing Corp. progress during the last 5-month period. The progress indicated herein is measured against surveys conducted in November-December 1952 and during January 1953.

Conferences were held with all levels of management to evaluate actions taken on each of the 48 recommendations made in the first survey report. Supplementing the conferences over 600 pages of supporting documentation will be placed in the files of the Industrial Manpower Branch, Industrial Resources Division, Air Materiel Command, Dayton, Ohio. The report covers 5 major subjects as follows:

- Part I. The Report (Requested by, Authorized by, Purpose)
- Part II. Employment Trends
- Part III. Management
- Part IV. Industrial Relations
- Part V. Production

## II. EMPLOYMENT INFORMATION (AIRCRAFT)

*Number employees*

	Plant		Office		Total		Grand total
	Male	Female	Male	Female	Male	Female	
Jan. 1, 1952.....	2,774	122	503	221	3,277	343	3,620
Dec. 1, 1952.....	4,033	635	1,315	501	5,348	1,136	6,484
Apr. 14, 1953.....	3,609	529	818	340	4,427	869	5,296

*Employee breakdown by shifts*

	Nov. 24, 1952	Jan. 1, 1953	Apr. 14, 1953
1st shift, 11 p. m.-7:30 a. m.....	123	122	96
2d shift, 7 a. m.-3:30 p. m.....	2,055	2,885	3,021
3d shift, 4:15 p. m.-12:45 a. m.....	2,292	2,004	2,179
Total.....	4,470	5,011	5,296

Workweek: 5 days per week, 40-hour week.

*Average hours worked per week*

	1st shift	2d shift	3d shift
July 1952.....	40.0	40.0	40.0
September 1952.....	41.4	41.0	41.3
October 1952.....	40.4	40.3	40.4
January 1953 <sup>1</sup> .....			
February 1953 <sup>2</sup> .....			
March 1953 <sup>3</sup> .....			

<sup>1</sup> All shifts was 40.3654.

<sup>2</sup> All shifts was 40.0236.

<sup>3</sup> All shifts was 40.0623.

*Direct and indirect workers*

	January 1953	April 1953
Direct.....	3,127	3,589
Indirect.....	1,884	1,707
Total.....	5,011	5,296

## III. MANAGEMENT

When the Kaiser Manufacturing Corp. was awarded the C-119 contract, its management was confronted with many problems in establishing a defense business of the magnitude of the C-119 program while simultaneously operating their commercial business. The tremendous load on management personnel in establishing the program necessitated dividing the organization into two groups—defense and commercial. The aircraft division was established, with complete control over its entire operation, and a similar group, the automotive division, was established for its commercial business. However, certain departments were maintained as they were originally set up, for the purpose of economy and clarity of operation. Among these are finance and industrial relations.

It was recognized that additional management and supervisory personnel who had had previous aircraft experience would be required. Consequently, the corporation actively engaged itself in endeavoring to acquire competent management and supervisory personnel. At the present time there are some 750 management and supervisory people in the aircraft division who have had previous experience—some with over 15 years—on this type of work.

Management has recognized that the installation of specific functions and controls would be necessary to properly operate the aircraft division. Further, that competent personnel must be concentrated and specialized to initiate and put into operation necessary programs. This overall program is well underway. As of now, it appears there are no major deficiencies in the organization and its personnel. There have been minor changes, as there will be, from time to time, in the refinement of any organization, but it is evident that all necessary functions and controls are now present or under way for a well-balanced, aircraft production organization.

#### IV. INDUSTRIAL RELATIONS

Considerable progress has been made in management operations since the original visit of the Manpower Utilization Survey Team in November 1952. The industrial relations division has attempted to lead the way in establishing policies and practices which the survey team feel have contributed materially to this progress. Not only has the industrial relations division been instrumental in establishing policies and practices for the improvement of manpower utilization but it has attempted to assist and counsel the manufacturing department in the administration of these policies. Following are some of the more tangible results of this overall program:

##### (1) *Personnel selection*

- (a) The appointment of a manpower administrator has considerably simplified the hiring program.
- (b) The newly formed investigation department is helping to eliminate undesirables.
- (c) Interviewers have been given additional training, a manual on techniques of interviewing has been developed, and individual training of interviewers conducted.
- (d) A complete battery of aptitude tests for hourly employees has been secured and is being utilized. Each hourly applicant receives at least three tests. People applying for some specialized jobs receive additional tests.
- (e) A supervisory selection committee has been appointed to screen all applicants for supervisory positions. Both manufacturing and industrial relations are represented on this committee and no new manufacturing supervisor is hired or upgraded without first being approved by this committee.

##### (2) *Training*

- (a) Every hourly employee transferred or hired into the aircraft section receives an orientation program devoted to familiarizing him with aircraft operations, shop rules, employee benefits, safety precautions, and so forth.
- (b) Aircraft procedure No. 67, providing for classroom and vestibule training for hourly employees, is now being followed.
- (c) All new foremen are required to attend the program Basic Management. Approximately 30 percent of the present supervision have not received this program but are being scheduled at the rate of about 20 per week.
- (d) An advanced program for supervision is now being developed. It is planned to schedule all supervision for this program as soon as all have received basic management.
- (e) Each aircraft supervisor attends 1 hour conference each week which is devoted to a discussion of current operating problems.
- (f) Facilities for training have been improved. Management training classrooms have been moved to a more quiet and desirable location. The Air Force contracting officer has been requested to approve certain expenditures necessary to soundproof classrooms located in the manufacturing area.
- (g) Vestibule training for hourly employees has been supplemented as needs have become apparent on the production floor.
- (h) A training program for tool engineers was recently inaugurated which will improve the caliber of this critical group.
- (i) All aircraft supervisors (foreman through superintendent) are now being rated quarterly on their performance. The supervisor is rated by his superior and the rating is discussed with the man rated.

##### (3) *Personnel statistics*

- (a) An exit interviewing program has been in operation for about 6 weeks. The purpose of this activity is to determine the real causes of turnover and to pinpoint the areas responsible for excessive turnover. The program has not yet been in operation long enough to measure the results. It is anticipated that

within a few months reliable statistics can be compiled and constructive action taken to eliminate these causes.

(b) Complete records relative to turnover are being maintained by department, by classification, by occupation, by shift, etc. These records are made available to manufacturing through the manpower administrator.

(4) *Labor relations*

(a) Overtime earnings of stewards have been materially reduced.

(b) Labor relations has negotiated with the Union a 1-year limitation on transfers, except at times of layoff, between aircraft and automotive.

(c) A general policy of tightening up on disciplinary cases in the plant has been initiated. Floor supervision has been instructed to thoroughly investigate all causes of loafing, poor workmanship, absenteeism, etc., and to take firm disciplinary action when necessary.

(d) Several departmental changes have been negotiated with the Union which the company feels was important to efficient manufacturing operations.

(e) A concentrated drive to eliminate rackets within the plant has been conducted. Disciplinary action has resulted and several violators have been separated from the company.

V. PRODUCTION

The general production picture at Willow Run has shown material improvement in the interim period between the original survey completed on the 18th of December 1952, and this date. Bottlenecks and trouble spots still exist; however, management presently is quick to recognize and localize these conditions and is taking prompt action to implement corrective measures as speedily as is humanly possible. Wherever practical, careful detailed studies are then made to prevent recurrence of problems which have been previously disposed of. Within the some-600 pages of documentary evidence referred to in the preface of this report will be found the supporting details upon which the following production phases discussed herein are predicated. Consistent with the survey team's objective reporting, the pattern which will be followed in discussing production will be general and will indicate the progress of this contractor during the past 5 months.

*Product engineering*

First subject covered is the progress of product engineering on both the C-119 and C-123 between November 1, 1952, and this date. The attached chart and explanation thereto, prepared under the team's direction, depicts the complete product engineering picture. It is interesting to note that on the C-123 it is currently 90 percent complete.

*Explanation of drawing release summary*

1. *C-119 aircraft program.*—Item A: Represents basic design drawings required of the prime design contractor to describe first aircraft.

Item B: Represents those drawings and information required for continued engineering on subsequent aircraft. Such data including ECP's and EAI's is being released upon establishment of ship effectivities by the master change control board.

2. *C-123 aircraft program.*—Item A: Represents basic design drawings required of the prime design contractor to describe first aircraft.

Item B: Represents those drawings and information required for continued engineering on first and subsequent aircraft. Such data involving ECP's, drawing revisions and EAI's is being released upon establishment of ship effectivities by the master change control board.



*Production engineering—drawing release summary—C-119C—123 aircraft program*

	Receivals as of Nov. 1, 1952	Released as of Nov. 1, 1952	Release per- cent Nov. 1, 1952	Receivals as of Apr. 20, 1953	Released as of Apr. 20, 1953	Release per- cent Apr. 20, 1953
1. C-119 aircraft program:						
A. Initial release draw- ings required to describing first aircraft.....	7, 207	7, 207	100	7, 207	7, 207	100
B. Other drawings and information re- quired for contin- ued engineering on subsequent aircraft (EOP's and EAT's).....	19, 070	19, 279	97	24, 404	22, 954	96
Total.....	27, 177	26, 486	-----	31, 611	30, 161	-----
2. C-123 aircraft program:						
A. Initial release draw- ings required to describing first aircraft.....	3, 894	3, 805	98	4, 241	4, 203	99
B. Other drawings and information re- quired for contin- ued engineering on first and sub- sequent aircraft (EOP's and EAT's).....	11, 543	10, 115	88	21, 441	19, 393	90
Total.....	15, 437	13, 920	-----	25, 682	23, 596	-----

*Tooling*

The team has prepared the following outline to present the program of the tooling department between November 1, 1952, and the present date. Again, it is pointed out that while the entire tooling situation has not yet been completely solved, high credit is due this department for the record included herein. It is believed that within 60 days from the date of this report, the tooling department of K-F will function on a par with the best in the airframe industry.

*A. Tool design*

- The total number of basic tool designs which it has been necessary to process on the C-119 program up to Apr. 20 (all K-F designs, including its subcontractors) has been----- 12, 102
  - The numbers which were completed on Nov. 1, 1952, were-- 11, 700
  - The numbers which were completed on Apr. 20, 1953, were-- 12, 052
  - The numbers yet to be completed on Apr. 20, 1953, were-- 50
- The total number of basic tool designs which it has been necessary to process on the C-123 program up to Apr. 20 has been----- 8, 736
  - The numbers which were completed on Nov. 1, 1952, were-- 6, 989
  - The numbers which were completed on Apr. 20, 1953, were-- 3, 429
  - The numbers yet to be completed on Apr. 20, 1953, were-- 307
- The total number of engineering changes which it has been necessary to process on the C-119 program affecting both Willow Run processing and tooling from Feb. 1, 1952, to Apr. 20, 1953, has been--- 9, 775
  - Engineering changes processed and O. K.'d for production from Feb. 1, 1952, to Nov. 1, 1952, were----- 7, 537
  - Engineering changes processed and O. K.'d for production from Feb. 1, 1952, to Apr. 20, 1953, were----- 9, 692
  - Engineering changes yet to be processed and O. K.'d for production on Apr. 20, 1953, were----- 83
  - C-119 master tooling:

In accordance with the technical assistance agreement, Fairchild is responsible for coordinating and incorporating all engineering changes on C-119 control masters and shop masters. There are 54 current control masters and 287 current shop masters. The coordination of the K-F masters with the Fairchild masters has been difficult because of the time and inherent shipping problems encountered in periodically transferring the K-F masters to and from Hagerstown.

*A. Tool design—Continued*

4. The total number of engineering changes which it has been necessary to process on the C-123 program affecting all tooling up to Apr. 20, 1953, has been ----- 11, 995
  - (a) Engineering changes processed and O.K.'d for production on Nov. 1, 1952, were ----- 7, 500
  - (b) Engineering changes processed and O.K.'d for production on Apr. 20, 1953, were ----- 11, 260
  - (c) Engineering changes yet to be processed and O. K.'d for production on Apr. 20, 1953, were ----- 735
  - (d) Master-gage designs processed and O. K.'d for production on Nov. 1, 1952, were ----- 1 341
  - (e) Master-gage designs processed and O. K.'d for production on Apr. 20, 1953, were ----- 1 394
  - (f) Master-gage designs yet to be processed and O. K.'d for production on Apr. 20, 1953, were none.<sup>1</sup>

<sup>1</sup> All master-gage designs are the responsibility of K-F.

*B. Production tooling*

1. The total number of production templates on the C-119 program (including 2,420 obsolete templates) are ----- 15, 840
  - (a) The number of production templates O. K.'d for production on Nov. 1, 1952, was ----- 12, 750
  - (b) The number of production templates O. K.'d for production on Apr. 20, 1953, was ----- 13, 420
  - (c) The number of production templates yet to be O. K.'d for production on Apr. 20, 1953, was ----- 112
2. The total number of production templates on the C-123 program (including approximately 2,000 obsolete templates) are ----- 12, 268
  - (a) The number of production templates O. K.'d for production on Nov. 1, 1952, was ----- 6, 087
  - (b) The number of production templates O. K.'d for production on Apr. 20, 1953, was ----- 9, 268
  - (c) The number of production templates yet to be O. K.'d for production on Apr. 20, 1953, was approximately ----- 1, 000
3. The total number of production tool jigs and fixtures on the C-119 program (including approximately 3,000 obsolete tools) is ----- 24, 300
  - (a) The number built and O. K.'d for production on Nov. 1, 1952, was approximately ----- 20, 000
  - (b) The number built and O. K.'d for production on Apr. 20, 1953, was ----- 20, 950
  - (c) The number yet to be built and/or O. K.'d for production on Apr. 20, 1953, was ----- 350
4. The total number of production tool jigs and fixtures on the C-123 program (including approximately 1,000 obsolete tools) is ----- 24, 000
  - (a) The number built and O. K.'d for production on Nov. 1, 1952, was ----- 12, 300
  - (b) The number built and O. K.'d for production on Apr. 20, 1953, was ----- 19, 500
  - (c) The number yet to be built and/or O. K.'d for production on Apr. 20, 1953, was ----- 1 3, 500

<sup>1</sup> The total of 3,500 consists of the following: 1,450 detail families, of which 90 percent have been built and received at the plant and only 29 fixtures not received; 36 fixtures in installation; and 18 fixtures in inspection.

*Tool control*

A tool control decentralization program has been undertaken since the original survey report. Dies, and so forth, for each program are now separated and stored adjacent to the machines on which they are to be used; routers are now close to raw stores. Identification and inspection operations are being decentralized so that the operations are to be done in the proper areas. Templates have been divided into two categories—tooling templates and production templates. Tooling templates have been moved next to the template manufacturing area, and production templates have been moved adjacent to the raw stock crib.

The back-ordering of tools is another bottleneck that has been corrected in Tool Control. Tools and templates are now requisitioned only once by the tool

followup men, and this, at the time the parts reach the area. If the tool is not available, the crib uses the requisition as a signal in the tool file until the tool is returned. As tools are returned, the tool file is checked and tools are sent to the floor at once, to fill the open requisitions in the tool file rather than being sent to stores. Under the former procedure, requisitions for tools were checked against the record, and those requisitions which could not be filled at once were returned to the area. New requisitions were then issued and the process repeated until the tool was available. In checking the results of this new procedure, it was found that the number of orders on both programs held for tooling on the floor was reduced from 1,168 on March 13, 1953, to 791 on April 14, 1953.

Another improvement which has been made is that all templates are now moved with the job at the first operation. Previously the templates were returned to stores at the end of each operation to be requisitioned by the area performing the next subsequent operation. This procedure has been helpful in reducing the number of jobs held for tooling. To support this statement, in a 5-hour period on April 14, templates stores released 309 jobs to production control. In airframe manufacture, there are many instances where the dual usage of tools is necessary. This contractor has now initiated a plan which corrects this situation.

The accountability records of all tools have been set up so that now the tool story on each part is readily available. While these records presently are not 100 percent complete, they will be in a short time.

Tool followup orders are now being scheduled into work in accordance with part production requirements. Each tool followup order is checked to see when a part order is scheduled in work. If the release date of the order is week No. 172, the completion date for tool followup is set at week No. 170. While the tool followup is in progress, tool control tells production control not to release the part. If the tool followup is not completed as scheduled and the part is placed on priority, the tool followup order is given the same priority as the part; i. e., IDENT or A priority. Tool followup orders placed on priority are subject to followup in the same manner as the part manufactured from the tool involved. The entire program on tool control embraces both the C-119 and the C-123 programs.

#### *Planning and material control*

The material-control situation, generally speaking, is in excellent shape. GF&E items are still critical on certain electrical items on both programs; however, it is felt that this condition will be minimized during the balance of 1953.

Production planning is comprised of the following subsections: Followup, specifications, subcontract, CMP and GF&E, office and inventory control.

After the purchasing department places the purchase order, it is the duty of the production-planning department to follow this order so that the delivery will be in accordance with the schedule called out on the purchase orders. The specifications department works in close cooperation with product engineering. The subcontracting group is responsible for all coordination work required between the subcontractors and Willow Run, to maintain the current schedules. The CMP and GF&E group supplies all information and schedules required by the Government and Kaiser-Frazer in maintaining adequate controls of CMP allocations and Government-furnished equipment. This entire group is being efficiently directed, and no material trouble areas have been uncovered at any time by this survey team.

#### *Production control*

In the original survey, it was recommended that top management immediately support a sound production-control program. This was again reiterated in the interim review. It can now be stated that K-F has a sound production-control program under way, which is built around an IBM system. The IBM card which has been designed carries all the basic information which is necessary in properly controlling production on each of the several thousands of parts which build the airplanes.

#### *Scheduling*

In January 1953, the scheduling department was organized with the following responsibilities which are being successfully carried out: Development, correlation, and coordination of program plans within policies established by management and the presentation of these plans to top management for decisions.

Schedules are prepared to coordinate all activities of various departments to a common pace and toward a common goal. The actual status of all manufacturing departments is reviewed each month and the progress made during the preceding

month interpreted in the scheduled forecast for subsequent months in sub, major, and final assembly divisions.

The scheduling department is increasing its value to management in its preparation of analysis and status reports of the various departments. The lapsed time since the creation of a scheduling department has not been long; however, it is the opinion of the survey team that they have made—and will continue to make—material progress.

#### *Estimating*

The estimating department was organized in December of 1952. While the development of accurate historical data is a program which takes time, the estimating department is beginning to show its value to management on current estimates.

#### *Industrial engineering*

Since November 1952, the status of the industrial engineering department in the contractor's organization has improved in two notable aspects. Ninety days ago, the department was primarily concerned with the analysis of operations which were after the fact. The department's present functions as a current and before-the-fact agency, are exemplified by its integration with the scheduling functions within the newly organized manufacturing control division. The scope of the industrial engineering function now covers methods and time standards, hours control, and general industrial engineering. While it has been the opinion of this survey team that the industrial engineering department in K-F was not functioning as efficiently as it should, in discussions recently held at this facility it has been determined that additional time is required to correctly evaluate and analyze its value to K-F. Presently this department is an active participant in a variety of advanced planning projects for top management. These projects include such items as analysis of mobilization schedules and facilities, workload imposed by proposed production schedules in preparation of documentary data concerning the performance of the aircraft division at this Willow Run plant. The long-range accuracy of these reports will do much to establish the value of the industrial engineering section.

*Manufacturing and tabulating department.*—The manufacturing and tabulating department commenced effective operation during the latter part of January 1953. The expansion of this department has been predicated on the premise that its activities should consist only of those functions which it can perform more economically or give better service than present manual methods. In the development of the operations of this department, all methods and procedures have been closely compared with those in use by other major manufacturers to insure optimum effectivity and to eliminate any possibility of waste motion. Such activities as the establishment of numerical lists of Willow Run-made parts, assembly and index reports, CMP bills of material, index reports and spare parts lists are but a few of the activities now currently under the control of the tabulating department.

The administration of this department is being effectively managed. In observations on the original report of the machining department, it was observed that a number of the machines were inoperative. The head of this department at that time was hesitant about taking on the machining of difficult parts. This condition has now materially changed for the better. A new manager of this department has been employed, and the department is now operating efficiently and is well managed. Machines are no longer idle and the general work tempo has improved. The plant layout of C-123 tooling appears to have been effectively administered, and the layout picture on that program is improving daily. Plant equipment, which has not been utilized, is now being moved and these areas are being utilized for productive requirement.

#### *Morale*

Morale in the Kaiser-Frazer facility has materially improved in the last 5 months.

#### *Idle time*

This contractor, by the acceptance of the 48 recommendations appearing in the initial survey report, has eliminated a vast amount of idle time. By the continued refinement of programs initiated, the contractor will further reduce this condition.

#### *Work tempo*

Although there has been considerable progress in work tempo at this facility, there still remains room for improvement.

*Departmental performance rating*

This contractor has adopted a departmental performance rating program. The procedure has been worked out and the items to be rated include: (1) Quality (scrap); (2) schedule position; (3) labor effectiveness or productivity; (4) ratio of indirect to direct labor; (5) absenteeism; (6) safety; (7) housekeeping; and (8) labor turnover. The results of ratings will be published in a monthly report which will include specific recommendations for improvement. The action taken to implement the recommendations made by the survey team in the initial report will be reviewed periodically in order to derive the full benefit from the ratings.

*Labor productivity*

This contractor has accepted the survey team's recommendations of the interim review as well as the original report with regard to correctly evaluating labor productivity. Efforts are now being made to perfect the standards program so that accurate criteria may be employed as a benchmark to determine labor productivity and its progress.

*Current production status*

The major concern of the survey team on previous visits was the contractor's ability to fabricate a sufficient number of parts to maintain both production programs. With the supporting functions such as production and tool control, engineering, and tooling, well organized and performing improved service to the production line, it is believed that the present rate of increase if sustained will be adequate to support the contractor's C-119 and C-123 production program.

During the first week in February following the team's previous visit, the fab shop completed an average of 186 basic-work orders per day. During the week of April 13, the fab shop completed an average of 308 basic work orders per day representing an increase of 65 percent.

Cycle time in subassembly necessary to meet schedules has generally been obtained in individual jigs throughout the program; however, the contractor has not yet demonstrated its overall ability in subassembly to support the scheduled requirements.

On the C-123 program, the contractor has 13,606 basic work orders to complete by August 31, 1953. This figure has been arrived at as follows: Lot 1 includes only index 17 (5 ships), 15 (2 ships), and 13 (2 ships) which require 2,445 basic work orders. Lot 2 requires 9,500 basic work orders and Lot 3 requires 9,500 basic orders. Lot 4 up to date of August 31 requires 2,916 basic work orders making a total of 24,361 basic work orders.

From the above figures the following basic-work orders can be deducted: Lot 697 which is an all time run has a total of 143 basic-work orders. The basic-work orders which have been completed up to April 22 are 9,212. The priming parts which will be furnished by Chase Aircraft total 1,400, making a grand total to be deducted from the above figures of 10,755. This leaves a balance to be processed at Willow Run of 13,606 work orders. There are, through August 31, 91 working days—dividing 13,606 by 91 we get a total of 149.5 or in round figures 150 basic-work orders to complete per day on the C-123 program. Adding the basic-work orders on the C-123 of 150 per day to those of the C-119 of 158 a day, we come up with a total of 308 basic-work orders which must be completed by this facility in order to meet their scheduled requirements. It is therefore interesting to note, as pointed out previously in this report, that the record indicates that an average of 308 work orders per day were completed during the week of April 13, 1953.

If the present realization of basic-work orders is maintained, it is, therefore, believed that this contractor can make its program schedules.

The assembly of the first C-123 aircraft with supporting priming cards from Chase, West Trenton, has progressed beyond normal expectations. All parts have been excellent fits with no basic difficulties arising from this initial plane and with Chase Trenton supplying several sets of priming parts the production forecast looks favorable. As pointed out previously, the tooling required to support the C-123 program is in excellent condition and will assist materially in keeping the program on schedule.

Mr. HENRY J. KAISER. This committee should not support the theory that newcomers in any industry should be excluded from participating in Government contracts. If this theory were to prevail, the country could not survive.

You may all remember the time when the Kaiser organization was excluded from participating at the start of the Government's World War II shipbuilding program because it had never built ships before. Only the British were willing to award us a contract, for 30 Liberty ships. We performed this contract so successfully that we received contracts from the United States Government, under which we built 1,490 ships, including more than 800 Liberty ships.

Our performance and cost records on these 1,490 ships show they were built one-third below the average time taken by all other shipbuilders, and one-fourth below the average cost of all other shipbuilders. These contracts, for the information of the committee, finally evolved as fixed-price contracts.

It is very interesting to note that, in the shipbuilding program, the cost per ship on our first ships was higher than the cost of other shipbuilders on comparable programs. This was the price paid for starting large production capacity. When this capacity was called upon for maximum output—as it was—it built rapidly and at low cost approximately 25 percent of the entire merchant marine tonnage built in World War II.

If another crisis comes, you may rest assured that the output of Kaiser-built ships in World War II will be surpassed by the output of Kaiser-built planes from Willow Run.

Willow Run holds the same great potential for the defense of our country. Gentlemen, it is my responsibility and yours to see that this capacity is kept alive and available for immediate use in the time of need that may come at any moment. This is the time to build, not to destroy.

The CHAIRMAN. Before we ask questions or get into anything further—

Senator SYMINGTON. Mr. Chairman, may I interrupt? I have to leave soon for another hearing. Could I read into the record what I was talking about?

The CHAIRMAN. Certainly.

Senator SYMINGTON. I think it is also fair to the Kaiser-Frazer interests that I do it. Mr. McCone said in his statement—he was the former Under Secretary of the Air Force for Procurement:

Thank you, Mr. Chairman. I tried to be eminently fair in my remarks and I think, however, that I was perhaps too strong in a statement that appears on page 126 of the transcript of my testimony, in which I said:

"When I was told about it"—and this is referring to the Kaiser-Frazer acquisition of the stock in the Chase Co.—"I said I felt it was a distinct violation of the commitments made to Secretary Finletter, General Vandenberg, and me."

I would like to amend that by saying that I thought that it was inconsistent with the spirit of the arrangements made with Secretary Finletter, General Vandenberg, and me. I do not like to have the record appear that the Kaiser Co. violated a commitment which might in effect be a violation of a contract or a moral obligation.

Previously, in commenting on the same subject, I stated that this transaction "caused particular embarrassment because it put the Kaiser-Frazer Co. where they had a grip on two competitive articles and it also violated the spirit of the understanding of Mr. Boutello and Mr. Kaiser" that I just spoke of.

I think that is a more temperate and proper wording and I would like to substitute it if I may.

I would like to put that in the record so that no injustice is certainly intended on my part.

Mr. HENRY J. KAISER. Thank you, Senator.

The CHAIRMAN. I would like to extend a courtesy, because he is attending other hearings, to Senator Beall, who has asked to say a word here because his name was referred to by one of the witnesses.

**STATEMENT OF HON J. GLENN BEALL, UNITED STATES SENATOR  
FROM THE STATE OF MARYLAND**

Senator BEALL. Thank you, Mr. Chairman. Since Mr. Henry Kaiser has commented on my recent letter to Secretary Talbott, I would like to correct any mistaken impression his remarks may have had on this committee.

My letter to the Secretary of the Air Force was written after I had read the testimony given earlier to this committee. The testimony to my mind was conclusive and I therefore suggested that the Secretary terminate the contract for construction of C-119 aircraft at Willow Run.

This letter and suggestion were at my own initiative and without the knowledge of Fairchild, until they read the statements in the newspapers. I regret the inferences of Mr. Kaiser's remarks and feel that his statement should be promptly corrected.

It is up to the Air Force to determine how many of the particular types of aircraft it needs—and frankly I do not care with whom they contract as long as costs are not extravagant.

However, when I see that the differential between two producers is as great as it is in this case, I think I would be derelict in my duty if I did not request prompt action by the Air Force.

As a Marylander I am naturally interested in the economic well-being of our State and am most happy when our economy is strong and our people prosperous. Like all other Marylanders I am proud of the Fairchild aircraft plant in Hagerstown, which makes a great contribution to the general economic welfare of western Maryland.

However, any inference of Mr. Henry Kaiser's that my letter to Secretary Talbott was purely for the sake of favoring a Maryland contractor is completely erroneous.

I repeat, the letter was written without prior knowledge of anyone at Fairchild, and the suggestion made solely in the interest of saving defense dollars.

Thank you very much.

Mr. HENRY J. KAISER. May I read a comment in answer to that?

The CHAIRMAN. Yes.

Mr. HENRY J. KAISER. The Air Force figures released by your committee yesterday serve to bring into sharp focus a comparison between our costs and Fairchild's costs in early stages of producing a plane. From these figures the Fairchild price on a comparative basis with Willow Run production can now be determined as \$4,339,000 per plane.

The Air Force figures placed in the record yesterday by this committee gives you and the American people an opportunity to make the first realistic comparison.

The Air Force figures show that Fairchild received \$1,867,000 each for the first 10 C-82's it built at Hagerstown. The C-119 is the same basic type cargo plane as the C-82, but is approximately 40 percent heavier.

Adjusting the Air Force's report on Fairchild's actual cost for the increase in weight, the rise in manufacturing costs in the intervening years, Fairchild's cost to produce the first 10 airplanes comparable to the C-119, using Willow Run labor rates, would be \$4,386,000 per plane.

Taking the same Air Force figures for Fairchild's cost for building the first 149 C-82's and making the same adjustment for greater weight and inflation based on Willow Run labor rates, Fairchild's price would average out at more than \$900,000. This is the first time we have been able to get figures which are somewhere nearly comparable.

It is obvious this places Willow Run in a very favorable perspective, inasmuch as Willow Run's cost of approximately \$1,200,000 includes the expense of operating a machine-tool capacity for turning out 93 planes a month, in a plant capable of producing 500 planes per month.

Your committee thus can enable the public to understand from the Fairchild price record that the cost of planes is necessarily high at the starting-up stage of production.

The CHAIRMAN. Mr. Kaiser, this is your statement? You are not quoting anybody there?

Mr. HENRY J. KAISER. That is right.

The CHAIRMAN. This is your own interpretation?

Mr. HENRY J. KAISER. I am quoting your committee's record.

The CHAIRMAN. You are talking about not the C-119 but a previously manufactured plane?

Mr. HENRY J. KAISER. Of the same basic type, only lighter.

The CHAIRMAN. Mr. Edgar Kaiser, I and the committee have at various times received various communications from Kaiser-Frazer workers and former workers and so forth about rackets. You referred to the rackets. Here is a letter that has just been received.

I would like to read it and have you comment on it as to whether or not it is a fact. It is from a man by the name of Walter Bardell. He addresses it:

DEAR SIR: I hear on the radio that you are investigating the Kaiser-Frazer Co. Well, if you could come to Ypsilanti where you could see for yourself, then you would know why I am writing you this letter.

I live right at the plant. We, my wife and family, and some company saw five of Kaiser plant protection men stealing from the company and putting the stuff over the fence to two State police, they were taking it away.

I went and reported it to the State police sergeant, there was nothing done about it. He, the sergeant, told me to report it to the plant protection office. I did. When I came home my electricity was shut off, you see when they built the bomber plant, which is now Kaiser, the Detroit Edison Co. had to take their line out, so they wired my house to the plant, so when they shut off my power, I went to see Mr. Edgar Kaiser, and ask him to turn on the electricity again, for our drinking water, and toilet, and he said if you would have kept your damn mouth shut about what you saw, you would still have your lights. He said we know what is going on, we are insured for it.

We saw every piece that was put over the fence and I would say there was about \$300.00. Three hundred dollars worth. But the paper came out and said there was \$11,000.00. Eleven thousand dollars. A good racket, worth investigating. If you come to my place, you can see for yourself. We were not mistaken as it is only 150 feet from our house.

You can tell who a man is that far away, especially the State police, for we know them personally. I also told him, Kaiser, about the head man of his plant protec-



tion stealing. He would not believe it, but I think he knew it. About 2 months ago, Mr. Jacobs the head of plant protection was caught stealing new cars and selling them to a Kaiser dealer from Pennsylvania for \$1,100.00. Eleven hundred dollars apiece.

Thank you,  
Sincerely yours,

WALTER BARDELL.

2815 TYLER Road, YPSILANTI, MICH.

We have read many letters. This one just came in. What is your comment on that? Do you know the man? Have you ever talked with him?

Mr. EDGAR F. KAISER. I have talked with this man, and most everybody in our community has talked with this gentleman. I would say he is not balanced. It would be an understatement.

The CHAIRMAN. And that the statement he makes, you investigated and found it false?

Mr. EDGAR F. KAISER. We have investigated.

The CHAIRMAN. You found them false or true?

Mr. EDGAR F. KAISER. Generally false. There is some indication—and I have no proof of this, to my knowledge—we may have it now—he was a part of one of these devices for getting parts out of the plant. What really disturbed me was when we fenced him off, so he could not get in. I am not sure of that.

Yesterday we were asked to supply a number of things. We are working on them. I would like to clear, for the record, this question about our estimates that were submitted to the Air Force. I have here a tabulation which includes all of the estimates that we have presented to the Air Force and the dates on which they were presented for the C-119.

I would like to file it for the record.

The CHAIRMAN. They will be received for the file.

*Analysis of estimates submitted by Kaiser-Frazer on C-119 contract*

		Total	Total divided by number planes
March '31, 1951, informal preliminary estimate.	176 Airplanes only; no rearrangement, tooling.	\$152,023,000	863,767
July 1951 estimate.....	200 Airplanes.....	145,699,000	728,495
	Tooling.....	13,498,000	
	Plant rearrangement.....	1,930,000	
	Portable tools.....	1,889,000	
	Subtotal.....	163,016,000	815,080
	Subcontracts profit.....	371,000	
	Prime profit.....	11,437,000	
	Total.....	174,824,000	874,120
November 16, 1951 estimate presented.	200 Airplanes.....	137,673,000	688,365
	Special tooling.....	17,398,000	
	Portable tools.....	1,683,000	
	Plant rearrangement.....	2,503,000	
	Subtotal.....	159,757,000	798,785
	Subcontracts profit.....	384,000	
	K-F profit.....	11,210,000	
	Total.....	171,351,000	856,755

Analysis of estimates submitted by Kaiser-Frazer on C-119 contract—Continued

		Total	Total divided by number planes
November 16, 1951 estimate negotiated and agreed for inclusion in contract.	200 Airplanes.....	\$137,673,000	688,365
	Special tooling.....	17,117,860	
	Portable tools.....	1,683,000	
	Plant rearrangement.....	2,503,000	
	Subtotal.....	158,976,860	794,884
	Engineering changes.....	1,103,063	
	Clause 4 (b) items.....	1,604,329	
	Fee prime.....	7,299,412	
July 22, 1953, estimate for 159 airplanes.	Subfee on rearrangement.....	111,020	
		169,094,684	1,845,473
	159 Airplanes.....	142,671,000	897,301
	Tooling.....	20,064,000	
	Rearrangement.....	4,842,000	
	Portable tools.....	1,751,000	
	Subtotal.....	169,328,000	1,064,955
	Engineering changes.....	1,103,063	
May 8, 1953, estimate submitted as required by contract provisions.	Clause 4 items.....	1,604,329	
	Fee exclusive of spares.....	6,574,412	
	Total.....	178,609,804	2,123,332
	159 Airplanes.....	165,875,005	1,043,242
	Tooling.....	19,353,892	
	Rearrangement.....	2,400,333	
	Portable tools.....	1,793,931	
	Clause 4 no fee items.....	2,038,567	
	Fee.....	7,062,854	
	Total.....	198,525,182	1,248,586

<sup>1</sup> Contract amount exclusive of spare parts.

<sup>2</sup> Amended contract amount exclusive of spare parts.

<sup>3</sup> Includes spares fee.

Mr. EDGAR F. KAISER. The next document: An inquiry was made concerning my testimony in a closed session of the Hébert committee. I would like to file our letter to that committee, and the information. (The document referred to is as follows:)

JUNE 24, 1953.

FIRST ESTIMATE FOR 200 C-119'S

At page 455 of the transcript, Mr. Edgar Kaiser testified that the first estimate on the C model amounted on a per-plane basis to about \$850,000.

Mr. Anton stated that an estimate in March 1952 at a hearing before the Armed Services Committee of the House amounted to \$688,000.

The fact is that the \$688,000 per-plane estimate referred to by Mr. Anton was for manufacturing cost only, and did not include plant rearrangement, tools, tooling, and fixed fee. The erroneous impression was left in the March 1952 hearings referred to by Mr. Anton (which were in executive session) that the \$688,000 figure was the total cost, rather than merely manufacturing costs. However, by letter of April 19, 1952, this was corrected to include costs other than manufacturing costs. A copy of the letter including this correction is attached.

The corrected tabulations supplied to the House Armed Services Committee shows a unit cost of \$837,465, which corresponds to Mr. Edgar Kaiser's approximation of \$850,000 at page 455 of the transcript.

(The attached letter is as follows:)

APRIL 19, 1952.

HON. F. EDWARD HÉBERT,  
Chairman, Special Subcommittee on Procurement,  
House Armed Services Committee,  
House Office Building, Washington, D. C.

DEAR MR. HÉBERT: During the course of my testimony before the Special Subcommittee on Procurement on Monday, March 31, 1952, I was asked to furnish specific information, which I did not have with me at the time of the hearing.

AIRCRAFT PROCUREMENT

The following is the information which was requested by the committee:

1. Question: What is your investment in Willow Run?

Answer: As of December 31, 1951, property, plant, and equipment, \$57,054,637.08, less depreciation of \$19,198,059.50, leaving a net book value, as of December 31, 1951, of \$37,856,577.58.

This total investment is at Willow Run only and does not include other divisions of Kaiser-Frazer not located at Willow Run and not chargeable to the Air Force under the airplane contracts.

2. Question: What percent of that is chargeable to the Government on these planes?

Answer: The total original investment at Willow Run of \$57,054,637.08 includes \$17,198,926.75 for buildings, building equipment, roads, and railroads at Willow Run. The latter amount only is considered by the Air Force as items that are of benefit to the aircraft operation. Buildings and building equipment are depreciated over a period of 33 years. Roads and sidings are depreciated over a period of 20 years. The actual depreciation on these items for the period April 1951, through December 1951, amounted to \$409,807.85, of which \$166,218.06 was allocated to aircraft. The allocation was made on the basis of floor space occupied. The automotive operations occupied 59.44 percent of the total floor space during the April to December 1951 period. Aircraft operations occupied 40.56 percent. Projecting the above on a yearly basis, aircraft would be charged approximately \$221,000 per year, or 1.29 percent of the total investment of \$17,198,926.75.

3. Question: Were the interest rates on borrowed money, either from private banks or the RFC, charged into the cost of the planes in making up our estimate?

Answer: The estimated cost of the C-119 airplane does not include any interest payable by Kaiser-Frazer to banks or to RFC.

4. Question: Can you give us a breakdown of all the items that go into the cost of these planes?

Answer: There is attached herewith an estimate entitled "C-119 Airplane Estimate of Cost," on which fixed fee was negotiated. You will note that this estimate is based on 200 planes, which was the original letter contract. The number has now been reduced to 159 airplanes. No revised estimate has as yet been prepared and negotiated with the Air Force.

5. Question: Is Mr. S. D. Bechtel a stockholder in Kaiser-Frazer Corp.?

Answer: According to the records of the transfer agent, neither Mr. S. D. Bechtel nor Bechtel Corp. are now or have ever been stockholders in Kaiser-Frazer Corp. Certain members of Mr. Bechtel's family, however, are shown as stockholders of record, in accordance with the dates listed on exhibit B attached herewith. Whether or not members of Mr. Bechtel's family are currently stockholders, we do not know, because the transfer agent's record will not show current stockholders, pending check of the stockholders for annual meeting purposes.

6. Question: What estimate have you given the Government for the cost of building the C-123 (Chase plane)?

Answer: No estimate has been given the Government on the C-123B and no final estimate has as yet been prepared, pending completion of detail drawings. Detail drawings will be completed this month, and estimates should be submitted to the Government within the next 30 to 60 days. Tentative estimates indicate that the cost per plane will be materially less than our estimate of cost on the C-119's.

I believe that the submission of this information completes the requests made by your committee. If you desire any further information, I should appreciate your advice.

Very truly yours,

EDGAR F. KAISER.

Attachments.

BC: Mr. Mike Miller, Mr. Walston S. Brown, Mr. John Hallett, Mr. Steve Girard, Mr. Chad Calhoun, Mr. H. Walton Cloke.

*C-119 airplane—Estimate of cost on which fixed fee was negotiated*

[Number of planes, 200]

	Per plane	200 planes
<b>On-site cost:</b>		
Material and purchased parts, entire plane.....	\$105,000	\$21,000,000
Direct labor.....	127,700	25,536,000
Factory burden.....	282,800	56,571,000
Engineering.....	21,200	4,238,000
Administrative.....	3,300	654,000
Home office expense.....	4,300	861,000
Subtotal on site.....	544,300	108,860,000
Subcontractors (less material).....	144,100	28,813,000
Total manufacturing cost.....	688,400	137,653,000
<b>Plant rearrangement:</b>		
Willow Run.....		1,600,000
Subcontractors plants.....		966,000
Subtotal.....		2,566,000
<b>Portable tools:</b>		
Willow Run.....		1,000,000
Subcontractors.....		731,000
Subtotal.....		1,731,000
<b>Tools, dies, jigs, and fixtures:</b>		
Willow Run.....		14,000,000
Subcontractors.....		4,171,000
Subtotal.....		18,171,000
Total other cost.....		22,468,000
<b>Fixed fee as negotiated:</b>		
Airplanes.....	30,960	6,192,000
Other cost.....		1,160,000
Total.....		7,352,000

NOTE.—Direct labor on site based on average of 3.2 man-hours per pound for 200 airplanes and 70 percent of direct man-hours to be on-site. Average direct labor rate \$1.90 per hour.

*Kaiser-Frazer Corp.—Common-stock ownership as of Apr. 15, 1952*

Name and address of record	Date <sup>1</sup>	Certificates issued certificate No. <sup>2</sup>	Number of shares	Balance
Barbara Bechtel (daughter of S. D. Bechtel, Sr.) care of American Trust Co., Trust Department, A-4373, 464 California St., San Francisco, Calif.	Dec. 12, 1950	N129772	100	100
Elizabeth Hogan Bechtel (wife of Stephen D. Bechtel, Jr.) 155 Sansome St., San Francisco, Calif.	Dec. 12, 1950	N129760	100	100
Stephen D. Bechtel, Jr. (son of S. D. Bechtel, Sr.) care of American Trust Co., Trust Department, A-4375, 464 California St., San Francisco, Calif.	July 24, 1950 Mar. 30, 1951	N120314/N120333 S25873/6	2,000 400	-----
S. D. Bechtel, trustee for Lauren Bechtel (daughter of S. D. Bechtel, Jr., and Elizabeth Hogan Bechtel, granddaughter of S. D. Bechtel, Sr.) 155 Sansome St., San Francisco, Calif.	Apr. 13, 1951 Dec. 19, 1950	N136962/N136977 S25442	1,600 100	4,600 100
S. D. Bechtel, trustee for Shana Bechtel (daughter of S. D. Bechtel, Jr., and Elizabeth Hogan Bechtel, granddaughter of S. D. Bechtel, Sr.), 155 Sansome St., San Francisco, Calif.	Dec. 12, 1950	S25406	100	100

<sup>1</sup> Date given is that on which certificate(s) were actually issued by the transfer agent or cotransfer agent for the corporation's stock. The date of the transaction might be the same; however, this is very doubtful. The actual transaction (on 1 of the exchanges on which the corporation's stock is listed) probably took place 3 or more days prior to the date of issuance of the certificate(s) listed.

<sup>2</sup> Letter "N" used as a prefix to stock certificate number indicates that certificate was used by Manufacturers Trust Co., New York, N. Y., the main transfer agent of the corporation's stock. Letter "S" used as a prefix indicates that certificate was issued by Bank of America N. T. & S. A., San Francisco, Calif., a cotransfer agent of the corporation's stock.

Mr. EDGAR F. KAISER. Could I proceed at this time to the two questions that were summed up by Senator Duff at the close of the hearing?

The CHAIRMAN. You may.

Mr. EDGAR F. KAISER. If I recall it correctly, from the record, Senator Duff, you said that you thought the information requested by Senator Byrd should be presented, and should be substantiated.

Senator DUFF. Yes, sir. He asked some questions that it seemed to me we should have specific data on.

Mr. EDGAR F. KAISER. We prepared one method of explaining a learning curve.

Senator DUFF. I would prefer, however, as far as that particular phase of the thing is concerned, that it be discussed when Senator Byrd is here. He would be able to determine whether or not the data was satisfactory from his understanding of the question.

Mr. EDGAR F. KAISER. I would suggest then that I merely file this explanation for the record. If Senator Byrd returns I will be glad to discuss it at that time.

The CHAIRMAN. All right. It may be filed.

(The document referred to is as follows:)

#### EXPLANATION OF "LEARNING CURVE"

1. Learning is repeating the same process until one becomes proficient. It is a progressive thing. In airplane manufacture likewise, learning is a progressive thing, and is a function of the number of units—that is, the number of times the process is repeated.
2. Historical experience in the airframe industry has indicated that the direct labor hours required to produce a unit of an airframe model decline as the number of units produced increases.
3. Because labor is such a large percentage of aircraft cost, the total airframe costs normally decline in a constant relationship with labor progress.
4. It has been found that this decline in unit labor costs in the production of aircraft follows an 80 percent "learning curve." This means that each time the quantity of planes produced is doubled, the cumulative average unit labor cost will be 80 percent of the quantity that was doubled. Thus, if the first 100 planes were produced at a labor cost of 1,000 hours each, the average labor cost for the first 200 planes would be 800 hours each, the average labor cost for the first 400 planes would be 640 hours each, et cetera.
5. The important fact to note about the "learning curve" is that the decrease in unit labor cost is a function of the number of units produced, not of the length of time a producer is in the business.
6. It is this fact that renders any comparison between costs of producers at different points of their learning curves (such as K-F at 71.4 units with Fairchild at 800 units) completely misleading and unfair.

Mr. EDGAR F. KAISER. Your second question was an explanation and a substantiation of whether or not, if we built 800 C-119's comparable to the number of planes that Fairchild had built, was there any evidence to indicate that we would be able to do what we said we could do, which is to match that cost, or do better than they.

We prepared last night a chart which I would like to show. We have the substantiating data. It is in pencil form. It is quite complicated and quite lengthy. I would like to file that with the committee as soon as we have completed the backup information which will substantiate this chart. This chart is prepared on a dollar basis, not on a man-hour basis, so that it covers both direct and indirect.

This is the one, just as a reference point, that we reviewed yesterday that is on direct man-hours only. I just bring it out at this time to evidence to the committee that the direct man-hours are following the industry curve. This shows our point on direct man-hours only with respect to cargo planes.

Mr. ANTON. This is based on the learning curve on man-hours?

Mr. EDGAR F. KAISER. Direct man-hours.

Mr. ANTON. In other words, you segregated the indirect out of your total labor hours and are using only direct labor hours?

Mr. EDGAR F. KAISER. Let me clear this. The gray lines represent information from the Air Force source books and they are direct and do not include indirects. That is correct.

Likewise, this is on a comparable basis.

Mr. ANTON. What were the man-hours at the first point where you start that yellow line?

Mr. EDGAR F. KAISER. At this point?

Mr. ANTON. Yes. How many man-hours?

Mr. EDGAR F. KAISER. The direct man-hours?

Mr. ANTON. Yes.

Mr. EDGAR F. KAISER. Approximately a little under 5 pounds per man-hour.

Mr. ANTON. What is the total—

Mr. EDGAR F. KAISER. Man-hours per pound, excuse me.

Mr. ANTON. What are the total man-hours at that time?

Mr. EDGAR F. KAISER. This chart doesn't give that information.

Mr. ANTON. What sort of a chart is it? Will you explain that again to the committee?

Mr. EDGAR F. KAISER. Yes, I will. These represent pounds per man-hour. These represent numbers of aircraft. It is a logarithmic chart.

Mr. ANTON. What does that point represent when the dip starts?

Mr. EDGAR F. KAISER. This point represents the number of pounds per man-hour that we were doing at a certain stage of number of planes of completion.

Mr. ANTON. What were the number of planes at that point?

Mr. EDGAR F. KAISER. They keep correcting me about man-hours per pound. Apparently I say it in reverse.

Mr. ANTON. What was the number of planes at that point that you had completed?

Mr. EDGAR F. KAISER. Forty-six.

Mr. ANTON. And it was still 5 man-hours per pound?

Mr. EDGAR F. KAISER. You have to look at this curve based on averages. As you know, Mr. Anton, they were not kept on a per plane basis. They are kept in block numbers and a part in lot numbers.

Mr. ANTON. I understand that. At that point it is still 5 man-hours per pound.

Mr. EDGAR F. KAISER. No; it is a little down.

Mr. ANTON. What is it?

Mr. EDGAR F. KAISER. The chart is too large. You can't tell exactly. But there is that point there, which is lower than this.

Mr. ANTON. I see the figure four is quite a bit below that. You started out with five. That line is running straight across. It looks as though it is still five.

Mr. EDGAR F. KAISER. All right. It is very close to it. Will that suffice?

Mr. ANTON. Now you have a dip and it says "estimated."

Mr. EDGAR F. KAISER. No. At this point here, this is your 71. This represents a downward curve and probably shows a block number break.

Mr. ANTON. At 71, what were the man-hours per pound?

Mr. EDGAR F. KAISER. A little under four.

Mr. ANTON. Have you got any other indication up to this date? Have you completed more than 71?

Mr. EDGAR F. KAISER. As of May 31, the estimate is about 3.3 man-hours per pound.

Mr. ANTON. How many planes does that represent?

Mr. EDGAR F. KAISER. About 80, equivalent. This chart is a dollar chart, which after all, as Senator Duff said, really is the interest of the committee. This shows the dollars per plane and demonstrates—as on a cumulative basis. We are about at this point right here now. The statement that I made, this does one thing. It shows you that the dollars per plane are coming down as we build these C-119s. This is our estimate.

The CHAIRMAN. Mr. Rhodes?

Mr. RHODES. While you have that chart there could you clarify a point that Mr. Henry Kaiser made and compute the cost of your first 10 planes using the same yardstick that he was using in discussing, I believe, the cost of the first 10 Fairchild planes?

Mr. EDGAR F. KAISER. Yes.

Mr. RHODES. What did your first 10 units cost, using the same type of measuring on that chart?

Mr. EDGAR F. KAISER. We can't break it on that lot number. In other words, what he just said was converting what he previously testified to here, that the first C-82, converted for inflation, et cetera, using Willow Run labor rates, according to our calculations, was \$4,300,000-something. In the information—I would like to point this out here—that you brought out yesterday as Air Force information, Fairchild made the computation themselves in there, and they figured, as I recall it, about \$3,300,000.

They use a different conversion. It is a matter of the estimator's opinion.

Mr. RHODES. But behind you you had the same experience that they have had.

Mr. EDGAR F. KAISER. No.

Mr. RHODES. You had figures to go back to which showed your costs at some point along the line that you ought to be able to break down and show what your first 10 would cost, or the same number. On the same basis can you give us an estimate for the record? This is a good point.

Mr. EDGAR F. KAISER. We will find out if we can.

Mr. RHODES. I think this is a good point. You were pretty specific on the other. I think you could at least rough in an estimate here.

(The statement referred to follows:)

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## AIRCRAFT PROCUREMENT

*Cost of Lot No. 1, 14 C-119 airplanes, Kaiser Manufacturing Corp.<sup>1</sup>*

	Amount	Unit
Recurring costs:		
Production material.....	\$1,486,000	
Direct labor.....	3,859,000	
Factory burden.....	10,556,000	
Engineering expense.....	1,852,000	
General and administrative expense.....	865,000	
Home office expense.....	243,000	
Portable tools and equipment.....	127,000	
Subcontractors cost.....	4,422,000	
Subtotal, recurring costs.....	23,410,000	\$1,672,000
Nonrecurring costs as of Nov. 30, 1952:		
Plant rearrangement.....	933,000	
Partial occupancy costs.....	2,017,000	
Project tooling.....	12,045,000	
Subtotal, nonrecurring costs.....	15,895,000	1,135,000
Preproduction expense for 1st 39 planes through Oct. 31, 1952:		
Burden.....	15,776,000	
Administrative.....	1,510,000	
Home office expense.....	285,000	
Portable tools and equipment.....	1,052,000	
Subtotal, preproduction expense (39 planes).....	18,623,000	
Subtotal, preproduction expense (14 planes) (14/39ths of \$18,623).....	6,692,000	478,000
Priming parts (cost to Government).....	1,633,000	117,000
Fee (less spares).....	579,000	41,000
Total cost.....	48,209,000	3,443,000
Alternate if all preproduction expense is applied to 1st 14 airplanes.....	60,140,000	4,295,000

<sup>1</sup> See appendix H for Kaiser estimate of Fairchild costs.

Mr. EDGAR F. KAISER. What you are trying to do is get me in a spot here. I was specific on the others because I quoted Air Force figures which you people submitted at this hearing yesterday. What you are doing, while I am in the middle of trying to explain this chart, is you are trying to show that our first airplane, compared with the adjusted figures of Fairchild, cost more than Fairchild's did after they are adjusted. Is that right?

Mr. RHODES. No.

Mr. EDGAR F. KAISER. Well, they did. We say that the reason for that, two fundamental reasons for that, since you want to go into it, are these: One, that we are operating in a plant that has machine-tool capacity and space to build about 93 a month, and we are running at a rate right now of around 10 a month.

There is a different situation when you have a large area with large tool capacity, building a limited number of planes, as against one that is building up on the acceleration.

Secondly, when you are not developing your own information—don't get a misunderstanding of what we are saying about Fairchild in here—this a normal situation in my opinion. We only had one thing that was really abnormal: Fairchilds were just unhappy because we were in the program. But I don't think you can go into any aircraft manufacturer's plant and find their drawings up to date either as to the airplanes or the tools.

It is a pretty broad statement, but I think it is true. It is a problem really if we had been working together that both of us faced.

Mr. RHODES. We are off the point.

Mr. EDGAR F. KAISER. No; we are not off the point.



Mr. RHODES. Hear me out. What you are saying is that you come here with a chart which purports to show your experience on a unit-cost basis up to 159 planes.

Mr. EDGAR F. KAISER. No. On a cumulative basis.

Mr. RHODES. Well, cumulative basis.

Mr. EDGAR F. KAISER. That is a lot different than unit.

Mr. RHODES. All right. You have to, somewhere along the line, do a matter of simple arithmetic and you should be able to prove out what it costs. We have done it.

Mr. EDGAR F. KAISER. Right. An equivalent.

Mr. RHODES. You do not base your figures in the same way that others do so that you cannot tell what the first five costs would actually be?

Mr. EDGAR F. KAISER. No; we are not saying that; you say that you have done it. I have got to say again, the way you did it was to take it at a break point here, say 71.4, as was done, and charge all the preproduction, all the tooling. Will you admit that was wrong?

Mr. RHODES. No; I want to go into that. If we sealed off the preproduction cost now—just for the sake of the record and for fairness, let us seal off the preproduction costs—

Mr. EDGAR F. KAISER. No.

Mr. RHODES. You are asking me to do this.

Mr. EDGAR F. KAISER. You want me to answer your questions. Will you not answer mine?

Mr. RHODES. Let me get into the point of the 71.4 planes.

Mr. EDGAR F. KAISER. No; because what you are going to say—I am anticipating your question, I will admit that, I know what it is: Take out all the tooling, all the preproduction, and are you not still higher than Fairchild?

That is what you are going to say.

Mr. RHODES. You are asking the question? Do you want me to answer it?

Mr. EDGAR F. KAISER. I already told you "Yes." The question is the degree, and the question is what are the circumstances, and are we doing a good job under those circumstances, or weren't we. What we are fussing about is that you have just been whipping us to date. You are saying that we are poor managers, inefficient. And you took no cognizance whatsoever of the situation. And you are still fighting me on it.

Mr. RHODES. You are charging us with unfairness. We say seal them off.

Mr. EDGAR F. KAISER. It is unfair because you don't give the facts.

Mr. RHODES. We seal off all of these things and you say we are still unfair.

Mr. EDGAR F. KAISER. You can take anybody's operation and tear it apart, and you have been tearing us apart. You obviously did not put anything that was good in the record. That is what we are fussing about.

Mr. RHODES. We put in the whole report.

Mr. EDGAR F. KAISER. I do not want to fight with Senator Bridges. Let us be honest about it. He is the chairman of the Appropriations Committee. He works with the Air Force. Do I want to pick a fight with him? I do not. But I am in a situation of defending my employees and defending the work I am doing.

Mr. RHODES. Mr. Kaiser, we are in a position of trying to grant everything that you say has been a deterrent. We put, in the interest—

Mr. EDGAR F. KAISER. Not everything, but it certainly has come off that way.

Mr. RHODES. I was trying to get at it with you this minute and you say it is still not fair.

Mr. EDGAR F. KAISER. I am trying to get through with this chart.

Mr. RHODES. I think we haven't gotten very far, but go ahead.

Mr. EDGAR F. KAISER. What I am trying to point out is that we are at this point on this curve and these are dollar figures. In answer to Senator Duff's question, we cannot prove it to you, Senator. We can only say this is our trend so far, and that if we keep on that curve, at the 800th airplane our cumulative cost for those 800 airplanes will be about \$350,000 for all the 800 airplanes. But the planes that are being built at that point from 820 to 1,071, will have an average cost of \$253,000 each, whereas the Fairchild planes, adjusted for our labor rates—no, without the adjustment—are stated to be—and I do not dispute that—\$265,000 each. If you adjust them for our labor rates, it is \$291,000. We will give you all the computations, all the supporting data as to how we arrived at it, and give the breakdown that you want based on our breakdown of costs to support it. We will furnish that to this committee.

Mr. ANTON. Does that beginning point at the chart where it is over \$2 million, represent the first plane?

Mr. EDGAR F. KAISER. May I have Mr. Miller, who prepared this chart—

Mr. ANTON. I do not think it is necessary.

Mr. EDGAR F. KAISER. He is an officer of the company. It is his business to do this estimating.

The CHAIRMAN. We will swear Mr. Miller in. You may call him.

Do you solemnly swear that the testimony you are to give is the truth, the whole truth, and nothing but the truth, so help you God?

Mr. MILLER. I do.

The CHAIRMAN. Your full name is what?

Mr. MILLER. Michael Miller.

The CHAIRMAN. And your title with the company?

Mr. MILLER. Executive vice president.

The CHAIRMAN. You may proceed.

**TESTIMONY OF MICHAEL MILLER, EXECUTIVE VICE PRESIDENT,  
KAISER MOTORS CORP.**

Mr. ANTON. The question that the committee is interested in is where that chart starts, I believe it is a little over \$2 million. What is the accurate figure there that you start out with?

Mr. MILLER. The chart starts out with 39 equivalent airplanes.

Mr. ANTON. That is not the first plane?

Mr. MILLER. No. That is right.

Mr. ANTON. What did you include in the cost to arrive at that unit cost of a little over \$2 million for the 39th plane?

Mr. MILLER. That includes all the actual preproduction expense; in other words, all the labor, all the burden, all the overhead that

had been spent up to that point; the tooling and the plant rearrangement is distributed equally over the 159 airplanes.

Mr. ANTON. The total incurred costs at that time is included?

Mr. MILLER. With the exception of tooling, plant rearrangement.

Mr. ANTON. How much was the tooling?

Mr. MILLER. The tooling at that point in dollars?

Mr. ANTON. Yes.

Mr. MILLER. About \$18 million. I would have to check that.

Mr. ANTON. What was the cost of plant rearrangement at that point?

Mr. MILLER. With the nonfee items, in the neighborhood of four or five million dollars, as I recall it.

Mr. ANTON. Was the fee included?

Mr. MILLER. Yes.

Mr. ANTON. In that figure?

Mr. MILLER. Yes.

Mr. ANTON. So you have 18 plus 4 or \$22 million not included. Is it your impression that the Fairchild Corp. excluded its tooling and plant rearrangement, or is including it in your comparison?

Mr. MILLER. I do not know about plant rearrangement. The Fairchild figures published in the record did write off a large block of tooling on the first 10 airplanes. A much larger block than on subsequent airplanes.

Mr. ANTON. Do you think if you included that \$22 million at that point that it would increase your figure of \$1,247,000?

Mr. MILLER. No. All that is—

Mr. ANTON. What did you write it off to? It is part of the Government contract.

Mr. MILLER. It is written off on 159 airplanes.

Mr. ANTON. What did you write it off to?

Mr. MILLER. On an average of 159 airplanes.

Mr. EDGAR F. KAISER. He did not understand your question. Mike, is it or is it not included in the costs?

Mr. MILLER. It is included in the total cost of \$1,240,000.

Mr. ANTON. You expressed it over 159 planes?

Mr. MILLER. Yes. There is an increment of 159 of that at this point.

The CHAIRMAN. Where does the line start leveling off?

Mr. MILLER. The learner curve never levels off theoretically.

The CHAIRMAN. So in that case it will get down to nothing.

Mr. MILLER. No. The experience we have on learning curves, they never exactly level off. The slope will flatten out in time.

Mr. EDGAR F. KAISER. Is it true that, generally speaking on high-volume programs, the learning curve levels out at the 800th bracket to the 1,000th bracket.

Mr. MILLER. Somewhere in that vicinity.

Senator DUFF. We ought to have prepared by the Air Force itself, taking both these data charts together, their interpretation of them for our benefit, to a final conclusion.

The CHAIRMAN. We will request the Air Force to do that.

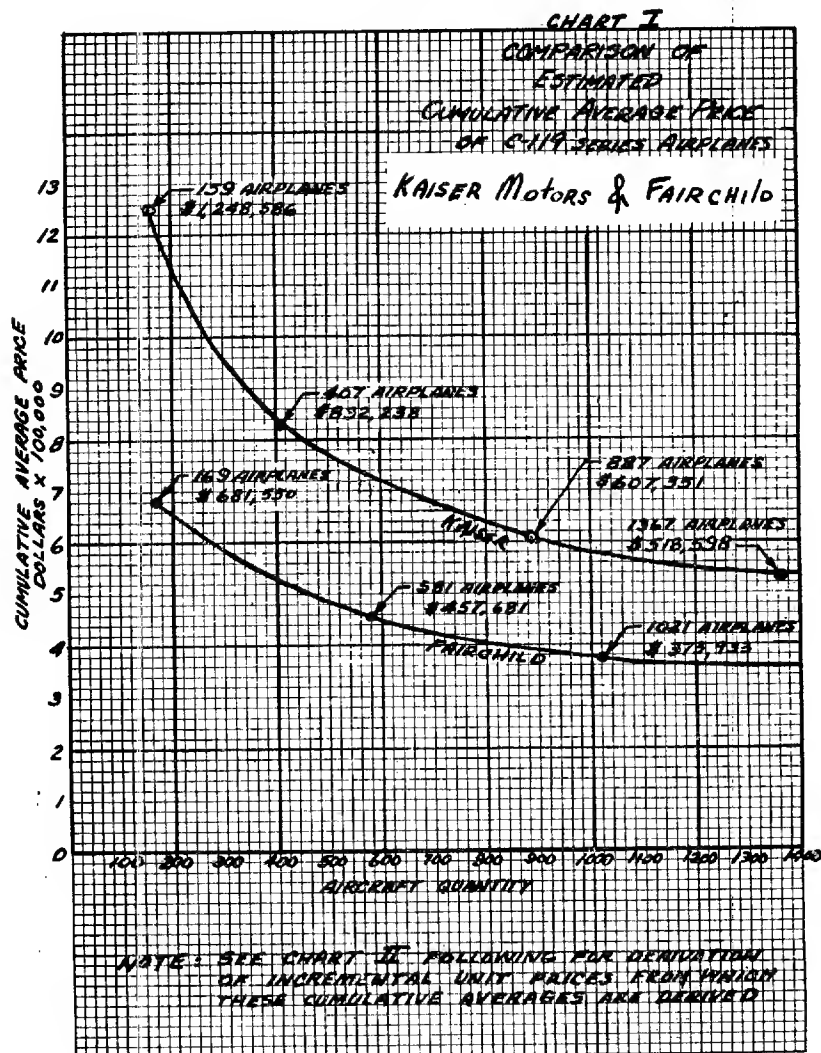
(Documents referred to are as follows:)

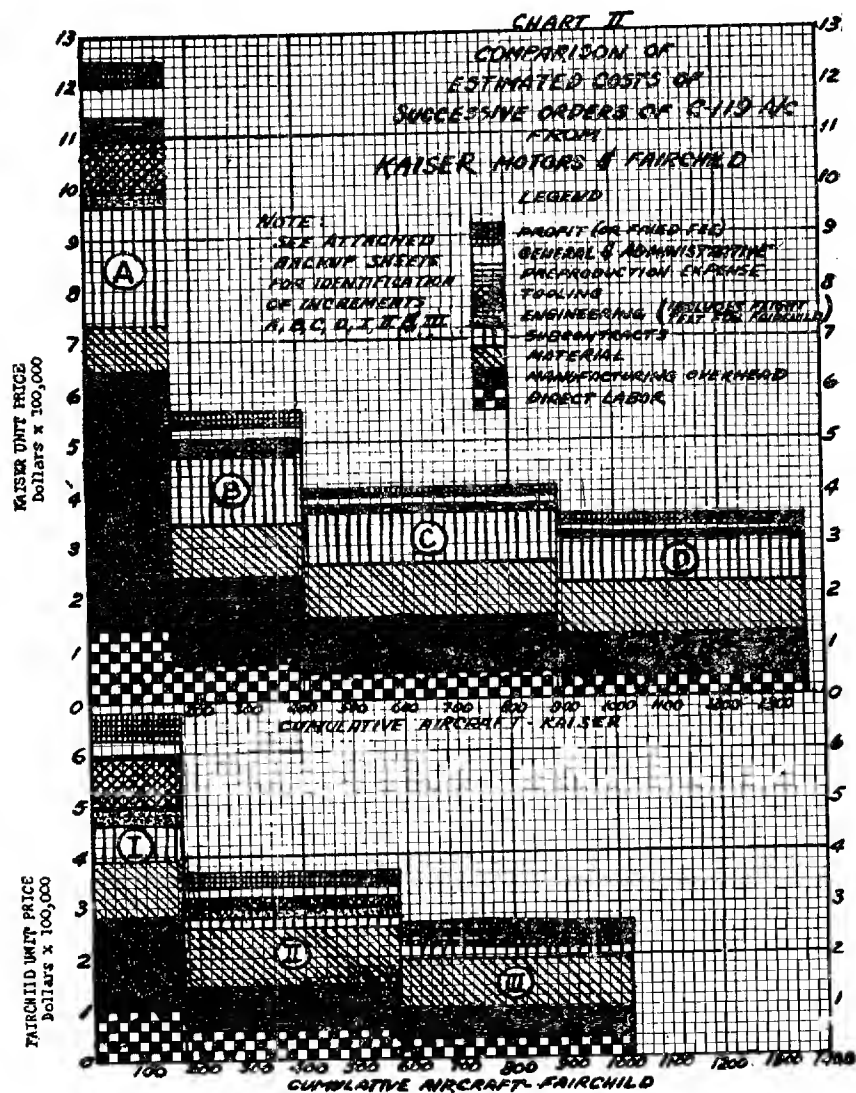
DEPARTMENT OF THE AIR FORCE,  
Washington, July 2, 1953.

MEMORANDUM FOR MR. JAMES ANTON, INVESTIGATING STAFF, SENATE ARMED  
SERVICES COMMITTEE

I enclose herewith the charts and other information which was prepared as requested by Senator Duff. You will note that in adjusting C-82 prices a factor is used to reflect price-index increases since the C-82 production period and another factor is used to adjust Fairchild's early C-119 prices for the same purpose. These factors were derived from the Bureau of Labor Statistics indices which were inserted in the record during the hearings.

JOHN L. HOWLAND,  
Associate General Counsel (Procurement).





Actual and USAF estimates for procurement of successive increments of C-119 aircraft from Fairchild Aircraft Corp.

	I <sup>1</sup>	II <sup>2</sup>	III <sup>3</sup>
Direct labor.....	\$105,425	\$50,109	\$38,831
Manufacturing overhead.....	172,788	82,895	58,336
Production material.....	112,680	119,085	102,653
Subcontracts.....	70,309	14,411	22,887
Engineering and flight test.....	37,145	22,622	8,044
Tooling.....	96,949	20,186	5,773
Preproduction expense.....	2,788	212	
General and administrative.....	29,581	16,115	9,198
Profit.....	53,881	31,636	19,345
Selling price.....	681,550	366,171	265,067

<sup>1</sup> Schedule I represents the actual incurred costs for 219 C-82 airplanes converted to C-119 equivalents (169) by an airframe weight ratio (1.3:1) and adjusted upward by a factor of 1.35 to reflect price index increases since the C-82 production period.

<sup>2</sup> Schedule II is the actual cost incurred for 412 C-119 B and C and R4Q-1 airplanes following the C-82's adjusted upward by a factor of 1.2 to reflect price index increases since the performance of this contract.

<sup>3</sup> Schedule III is the redetermined price of the 440 C-119 F and G and R4Q-2 airplanes now on contract from Fairchild. No price index adjustment is made since the period of performance is approximately parallel to the Kaiser Motors contract for 169 airplanes.

USAF cost estimates for procurement of successive increments of C-119 aircraft from Kaiser Motors, Inc.

	A <sup>1</sup>	B <sup>2</sup>	C <sup>3</sup>	D <sup>4</sup>
Direct labor <sup>1</sup> .....	\$146,735	\$73,800	\$53,300	\$44,075
Manufacturing overhead <sup>2</sup> .....	498,644	166,050	106,600	77,130
Production material <sup>3</sup> .....	90,371	105,000	102,000	102,000
Subcontracts <sup>4</sup> .....	227,896	130,000	100,000	85,000
Engineering <sup>5</sup> .....	29,534	11,070	5,330	4,400
Tooling <sup>6</sup> .....	121,723	17,380	3,730	3,085
Preproduction expense <sup>7</sup> .....	39,200	0	0	0
General and administrative <sup>8</sup> .....	50,363	20,130	14,840	12,630
Profit (fee).....	44,420	41,875	30,865	26,265
Selling price.....	1,248,586	665,305	416,665	354,585

I. GENERAL NOTES

(a) Costs estimated above are based on the following assumed schedule:

January.....	(a)
February.....	(a)
March.....	(a)
April.....	(a)
May.....	(a)
June.....	(a)
1953-July.....	(a)
August.....	8
September.....	8
October.....	9
November.....	10
December.....	11
1954-January.....	12
February.....	13
March.....	14
Total.....	169
April.....	18
May.....	20
June.....	22
July.....	24
August.....	27
September.....	30
October.....	33
November.....	36
December.....	38
Total.....	248

See footnotes at end of table, p. 367.

USAF cost estimates for procurement of successive increments of C-119 aircraft from  
Kaiser Motors, Inc.—Continued

I. GENERAL NOTES—Continued

1955—January.....	40
February.....	40
March.....	40
April.....	40
May.....	40
June.....	40
July.....	40
August.....	40
September.....	40
October.....	40
November.....	40
December.....	40
Total.....	480
1956—January.....	40
February.....	40
March.....	40
April.....	40
May.....	40
June.....	40
July.....	40
August.....	40
September.....	40
October.....	40
November.....	40
December.....	40
Total.....	480

\* 58 A/C prior to July 1953.

(b) Current percentage (30 percent) of subcontracting maintained.

(c) Direct labor man-hours for the various increments of airplanes are established from the attached labor-progress curve, labeled "exhibit I."

II. SPECIFIC NOTES (AS INDICATED IN COST BREAKDOWN)

- <sup>1</sup> Schedule A is the breakdown of costs submitted to AMC by Kaiser Motors on May 8, 1953, as their then current estimate of the cost of the 159 airplanes on contract.
- <sup>2</sup> Schedule B is the USAF estimate of the unit cost of 248 additional aircraft immediately following the first 159 in production for delivery in accordance with the schedule in general note a, above. (No consideration given to the practicality of reorder lead time.)
- <sup>3</sup> Schedule C is the USAF estimate of the unit cost of 480 airplanes following those priced in schedule B.
- <sup>4</sup> Schedule D is the USAF estimate of the unit cost of 480 airplanes following those priced in schedule C.
- <sup>5</sup> Direct labor costs estimated as follows:
  - (a) Schedule A—Kaiser Motors current estimate.
  - (b) Schedule B—Increment average of 36,000 on-site manhours per unit, at \$2.05.
  - (c) Schedule C—Increment average of 26,000 on-site manhours per unit, at \$2.05.
  - (d) Schedule D—Increment average of 21,500 on-site manhours per unit, at \$2.05.
- <sup>6</sup> Manufacturing overhead estimated as follows:
  - (a) Schedule A—Kaiser Motors estimate (341 percent).
  - (b) Schedule B—225 percent of direct labor dollars.
  - (c) Schedule C—200 percent of direct labor dollars.
  - (d) Schedule D—175 percent of direct labor dollars.
- <sup>7</sup> Production material for schedule A is actual and does not include priming parts and assemblies furnished under technical assistance agreement for first 30 airplanes. Schedules B, C, and D use Fairchild's current material costs, except that scrap allowance is made higher for schedule B only. This is raw material and purchased parts.
- <sup>8</sup> Reduction in subcontractor costs accomplished at approximately same rates as on-site recurring costs
- <sup>9</sup> Sustaining engineering costs estimated as follows:
  - (a) Schedule A—Kaiser Motors estimate (20 percent).
  - (b) Schedule B—15 percent of direct labor dollars.
  - (c) Schedule C—10 percent of direct labor dollars.
  - (d) Schedule D—10 percent of direct labor dollars.
- <sup>10</sup> Tooling costs estimated as follows:
  - (a) Schedule A—Incurred costs for first 159 airplanes for 22 plus per month tooling.
  - (b) Schedule B—Allows \$10,000 per airplane for additional tooling to get to 40 aircraft per month rate plus 10 percent of direct labor dollars for tool maintenance.
  - (c) Schedules C and D—7 percent of direct labor dollars for tool maintenance.
- <sup>11</sup> Includes expense already incurred for:
  - (a) Plant rearrangement.
  - (b) Portable tools.
  - (c) Contract clause 4 (no fee) items, at both Willow Run and major subcontractors.
- <sup>12</sup> G and A for Schedule A is the Kaiser Motors estimate. For Schedules B, C, and D it is computed at 4 percent of cost.
- <sup>13</sup> Fee is actual for Schedule A. Schedules B, C, and D assume some form of fixed price contract at 8 percent profit rate on cost.

Senator BYRD. I apologize for being late. I was in a very important meeting of the Finance Committee.

Mr. EDGAR F. KAISER. Senator Byrd, you asked me when do you get to that point of efficiency. I was having difficulty because I said it is based on numbers of airplanes. In other words, it is the unit produced. The best answer that we can give you—and we are substantiating that with figures to be filed to back up this chart—is that based on our present rate of approximately 12 airplanes per month, we would meet Fairchild's costs at about the 800th airplane. If you accelerate our rate——

Senator BYRD. How long in time?

Mr. EDGAR F. KAISER. At 12 airplanes a month that would be 7 years. Am I right? About that.

Senator BYRD. If you put in learning, can that be expedited?

Mr. EDGAR F. KAISER. Yes, sir.

Senator BYRD. I do not see why it should take 7 years. A man can go into college and become a doctor or a lawyer.

Mr. EDGAR F. KAISER. That is right. You are perfectly right.

Senator BYRD. Why do you want to take 7 years?

Mr. EDGAR F. KAISER. We do not want to. If we can accelerate that to 200 a month——

Senator BYRD. In other words, you want more contracts to produce more airplanes?

Mr. EDGAR F. KAISER. No. If they are required, Senator.

Senator BYRD. The way things are now going when will you be on a competitive basis with Fairchild? That is the question I asked. I did not intend to ask how long it would be before you learned efficiency. I asked when would you be on a competitive basis with Fairchild.

Mr. EDGAR F. KAISER. If you disregard entirely each of the points on the learning curve then at that rate it would take that long to get there.

Senator BYRD. Seven years? Then do you expect the Government to subsidize you for 7 years or not?

Mr. EDGAR F. KAISER. I think it is a question of whether or not you want the capacity of a plant behind you that will furnish up to 500 planes a month.

Senator BYRD. I cannot understand why it would take 7 years.

Mr. EDGAR F. KAISER. Because of the very low rate of production.

Senator BYRD. You mean you do not work enough people on these planes?

Mr. EDGAR F. KAISER. No, you work the same number of people, but the repetitive operation. I think there is a fallacy in that but I cannot say anything else with the information we have got.

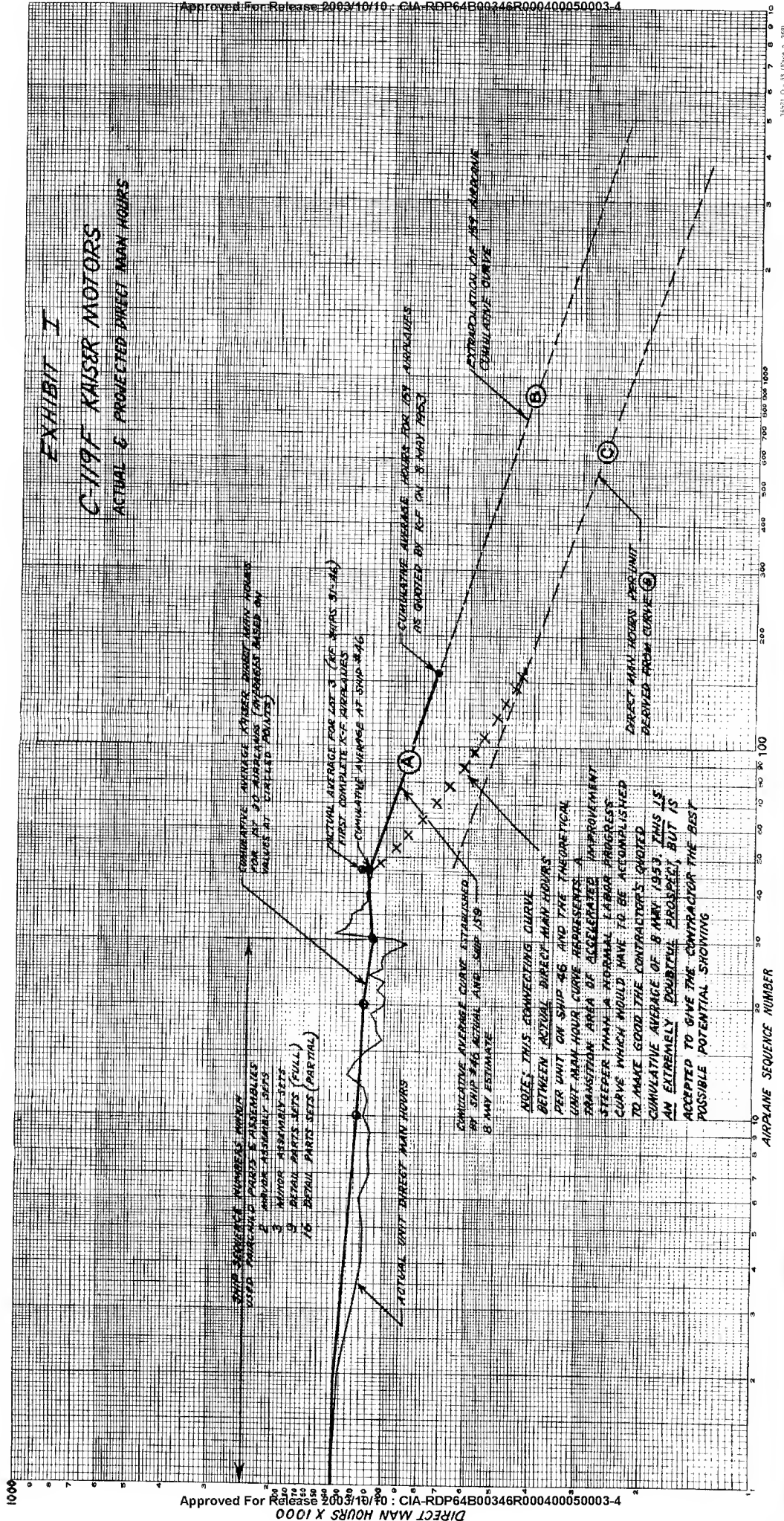
Senator BYRD. In other words, the situation that I was trying to find out about is this: When are you going to be on a competitive basis with Fairchild? Unless you get additional contracts and manufacture more planes, it will be 7 years before you can produce at the same price that Fairchild produces?

Mr. EDGAR F. KAISER. It took Fairchild 7 years to get to that same point themselves. So if I start coming in here and saying I am going to do it sooner, then I will get in trouble with them. I am probably in plenty anyway.

Senator BYRD. I am speaking from the standpoint of the Government because we have to pay these bills. In other words, a bonus or subsidy will be paid to you for 7 years——



# EXHIBIT I C-119F KAISER MOTORS ACTUAL & PROJECTED DIRECT MAN HOURS



Mr. EDGAR F. KAISER. You have been doing it to Fairchild for 7. Senator BYRD. That is all right.

Mr. EDGAR F. KAISER. That is what is bothering me. Why is it all right—

Senator BYRD. Wait a minute. I have not finished. It may be necessary. Fairchild built these planes first.

Mr. EDGAR F. KAISER. Yes, sir.

Senator BYRD. Do you not have access to the experience of Fairchild?

Mr. EDGAR F. KAISER. That is the difference. Yes, we have access to that.

Senator BYRD. Why do you not utilize that and use that to make yourself more efficient in less time than Fairchild? They started out fresh, did they not? They started out fresh on this plane, did they not?

Mr. EDGAR F. KAISER. On this plane, that is right.

Senator BYRD. Can you not utilize their experience?

Mr. EDGAR F. KAISER. Yes.

Senator BYRD. As I understand it \$3 million—

Mr. EDGAR F. KAISER. It has been a little difficult under the circumstances.

Senator BYRD. Was not \$3 million spent by the Government for Fairchild to give the know-how to you?

Mr. EDGAR F. KAISER. That is right.

Senator BYRD. Why did that not amount to something? Why do you have to take the same amount of time if this is not a completely new plane?

Mr. EDGAR F. KAISER. I said awhile ago that is a fallacy.

Senator BYRD. I am looking at it from the standpoint that the United States Government has to pay the bills, the taxpayers have to pay these bills. I can understand that a new plane—I know nothing about it, of course—a new plane that you start out on, I can understand that it is costly to get that into production. But after it is once gotten into production by one plant why can we not transfer, so to speak, some of this efficiency or learning that this first plant had to another plant that is going to make the same plane? Unless we do that the cost of manufacturing these planes through the years to come is going to be greatly increased.

Mr. EDGAR F. KAISER. Senator, have I made clear to you that a learning curve is based upon one individual fellow repeating one operation or whatever operations he performs, and that as he continually repeats those operations he becomes more efficient? It is not a question of the—

Senator BYRD. I asked you a few minutes ago if it was a fact that if you did not have a sufficient number of men working to get the experience, and you said it was not. In other words, if you are only making a small production of planes then you only have a certain number of people working on them. Is that right?

Mr. EDGAR F. KAISER. That is right.

Senator BYRD. If you produce a larger number of planes you have more people working on it?

Mr. EDGAR F. KAISER. There are several factors that come into it. If you are producing a larger number of planes, then you can break the

work down because there is more work and this one person does the same operation over and over.

Senator BYRD. Then it makes no difference how many planes you make. From now on it will take you 7 years to be on a competitive—

Mr. EDGAR F. KAISER. No, sir; it is not correct.

Senator BYRD. What do you mean? I must be very dumb or something. I do not know what you mean. First you say it makes no difference how many people you have employed; it will take the same length of time, 7 years to get this so-called efficiency, whatever it is.

Mr. EDGAR F. KAISER. No, sir; I didn't say that

Senator BYRD. What did you say? Repeat it.

Mr. EDGAR F. KAISER. What I said was that I think there is a fallacy in that.

Senator BYRD. What is the fallacy?

Mr. EDGAR F. KAISER. I think if you take 7 years, even at a rate of 12 a month in Willow Run, that you will be able to beat this curve. But I have no figures here that can prove that to you, or any curve. I can only make that statement. That statement can be challenged, saying, "That is what Edgar Kaiser said. How can he prove it?"

Senator BYRD. How long will it take your company to get the same degree of efficiency as Fairchild?

Mr. EDGAR F. KAISER. I tell you that that depends upon the number—do you want to answer it?

Mr. HENRY J. KAISER. If the Government tooled for 93 a month, and placed the orders for 93 a month, we would be within 1 year of where Fairchild is, based upon all the industry curves. That is what the industry curves prove.

Senator BYRD. I just asked your son a question whether, if he got larger contracts, he would reach this degree of efficiency sooner. He said no.

Mr. EDGAR F. KAISER. Yes. I said yes to that.

Senator BYRD. You said yes?

Mr. EDGAR F. KAISER. Oh, yes. Definitely, Senator. In other words, it is when you get to the 800th plane, and it depends on how many planes a month until you get there.

Senator BYRD. How many planes is Fairchild putting out?

Mr. EDGAR F. KAISER. They have put out over 800.

Senator BYRD. How many a month?

Mr. EDGAR F. KAISER. I am not sure. Is the rate per month a restricted figure or not? I have gotten into trouble with it before. I think it is classified. I am sure it is available to the committee.

Senator BYRD. Fairchild is putting out 25. If you got a contract for 25, how long would it take you then to be as efficient as Fairchild?

Mr. EDGAR F. KAISER. I told Senator Duff before you came in, we will give you all the backup on that, and prepare the detailed information.

Senator BYRD. I must confess—

Mr. EDGAR F. KAISER. Maybe it moves up 3 years or 4 years. It is somewhere in that point. We want to be accurate about it. We will give you that same information based on various rates of production.

Senator BYRD. Understand I am not holding any brief for Fairchild or anybody else in this. I am trying to represent the United States Congress.

Mr. HENRY J. KAISER. I believe you are.

Senator BYRD. I want to get these planes as cheaply as we can. I think the charges for these planes have been very exorbitant. Let me get it down again. If you make 12 planes a month it will take you 7 years to get on equality with Fairchild? Is that right?

Mr. HENRY J. KAISER. If you make 100 planes a month—

Senator BYRD. You cannot go beyond Fairchild for the sake of comparison. I only used Fairchild because, as I understand it, you are all making the same planes.

Mr. HENRY J. KAISER. But there is a difference in the size of the plant. One is running at maximum capacity and the other is running at a low capacity. But, Senator, I last night agreed with our boys to set up all the figures you want, set up various charts, give you everything you wanted.

Senator BYRD. You set up something here that seems to me to confuse the thing.

Mr. HENRY J. KAISER. I can make it clear for you by the charts and by putting our organization to work to get it out.

Senator BYRD. Take the comparison with Fairchild. I only do this because you are making the same thing. They are making 25 a month. Is that correct?

Mr. EDGAR F. KAISER. I do not know.

Senator BYRD. Is that correct? Does anybody know?

Mr. ANTON. The figure is actually 29 a month.

Senator BYRD. If you make 29 a month, you have already gotten a good deal of experience, have you not?

Mr. EDGAR F. KAISER. That is correct.

Senator BYRD. How long will it take you to have the same degree of efficiency as Fairchild has?

Mr. EDGAR F. KAISER. When we get to the same number of planes they have built.

Senator BYRD. When will that be?

Mr. EDGAR F. KAISER. A little over 2 years.

Senator BYRD. A few minutes ago you said it was 4. Now you say it is 2. If you have 12 planes it is 7 years.

Mr. HENRY J. KAISER. I want to give you the chart, Senator. You get the information and you will like it when you get it.

(Documents referred to are as follows:)

METHOD OF DETERMINING WHEN KMC WOULD REACH 30,000 DIRECT MAN-HOURS PER AIRPLANE BASED ON A PRODUCTION OF 25 PLANES PER MONTH

1. The man-hours per pound of the individual airplanes as determined at Willow Run and furnished to the subcommittee was plotted on a log log chart (see attached chart). This shows that at airplane No. 159, the estimated direct man-hours per pound is 1.94.

2. An improvement curve of 73.5 percent, which is the industry average for medium transports, was assumed for the airplanes beyond No. 159.

3. 30,000 man-hours divided by the airframe weight of 28,739 pounds equals 1.04 man-hours per pound. From the chart, this is reached at airplane No. 700.

4. As of June 30, 1953, KMC had completed 59 airplanes. Starting from there and assuming a normal acceleration rate, it is estimated that KMC would have

completed 700 airplanes in November of 1955. Following is the assumed build-up schedule:

	Month	Cumulative
1953-June.....		59
July.....	9	68
August.....	10	78
September.....	12	90
October.....	14	104
November.....	16	120
December.....	19	139
1954-January.....	22	161
February.....	24	185
March.....	25	210
April 1954 to November 1955, 20 months at 25.....	500	710

Mr. EDGAR F. KAISER. Senator, we are not trying to confuse you. I do not understand it. If you say it is based on numbers of airplanes, and that figure is 800—

Senator BYRD. Why necessarily is it based on the number of airplanes? You are the second manufacturer that is making the same plane. Haven't you got any benefit from the experience of Fairchild?

Mr. EDGAR F. KAISER. Yes.

Senator BYRD. What happened to the \$3 million that it cost the Government to give you the know-how that is coming from Fairchild?

Mr. HENRY J. KAISER. I would say it cost us at least \$3 million more to correct the tools they furnished.

Senator BYRD. Then you added that to the cost of the planes?

Mr. HENRY J. KAISER. We have to do it.

Senator BYRD. In other words, it cost \$6 million instead of three. Did Fairchild fail to or refuse to give you the information?

Mr. HENRY J. KAISER. They gave us wrong information.

Senator BYRD. Deliberately?

Mr. HENRY J. KAISER. No.

Senator BYRD. It looks to me like in this country, with all this armored force, somebody has to learn with the experience of somebody else. When somebody starts out fresh and charges a million dollars more for a plane just because it is a new plane, where are we going to be?

Mr. HENRY J. KAISER. You have a good point but you are on a subject that requires a great deal of information and charts to give you alternate figures, to arrive at the conclusions you want to arrive at. You cannot tell. We worked diligently, 15 of us, to try to get the background figures for this.

Senator BYRD. Does anybody know if it cost Fairchild the same amount as it cost you, or rather cost the Government, to make these 159 planes?

(See appendix A and testimony of Mr. Mautner.)

Mr. HENRY J. KAISER. No, it cost them less.

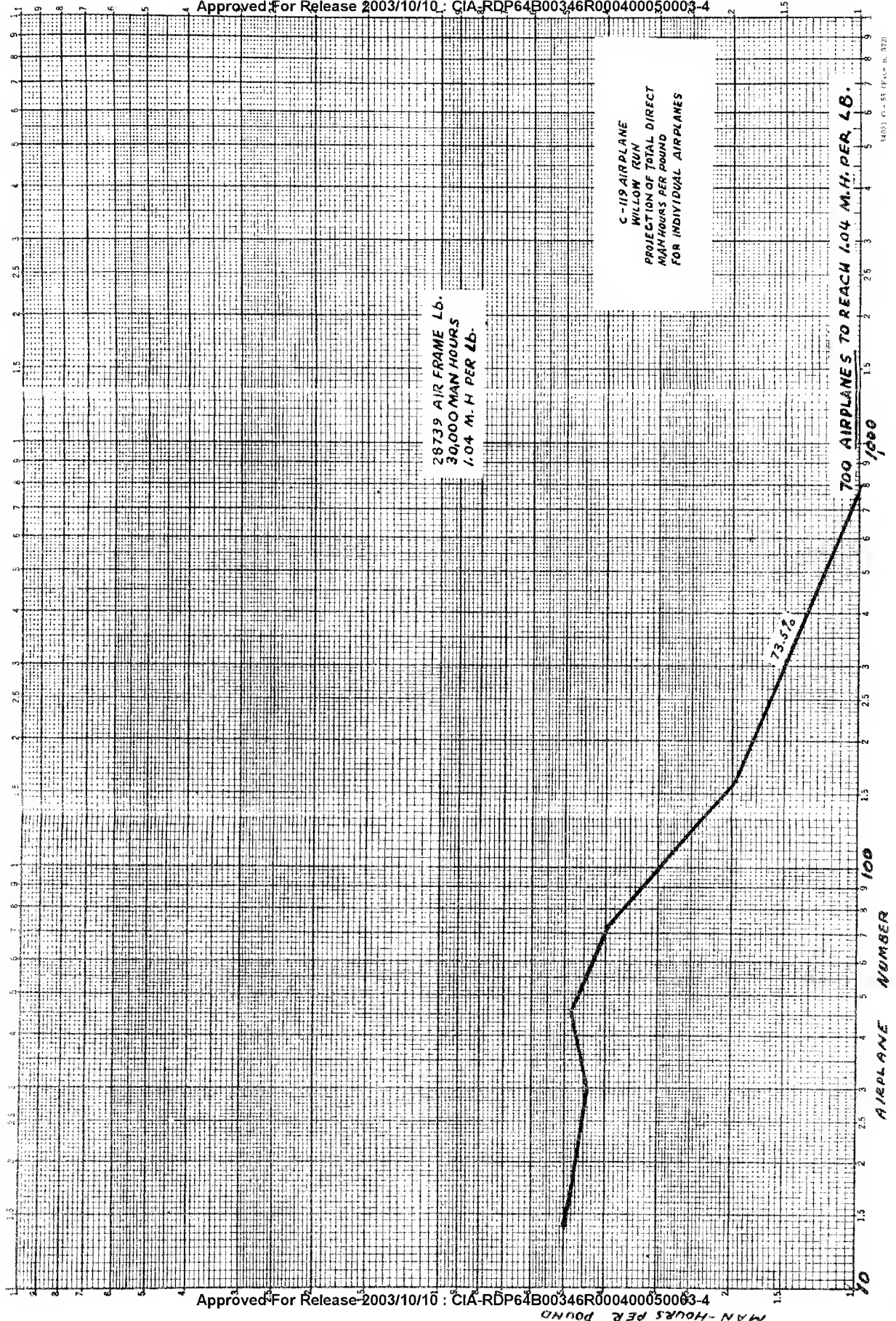
Senator BYRD. Why is that?

Mr. HENRY J. KAISER. Their first 10, Senator, cost \$4,300,000 on a comparable basis per plane. Their first—

Mr. EDGAR F. KAISER. That is our interpretation. Their own figures are—

Mr. HENRY J. KAISER. That is what the committee furnished us yesterday.





Senator BYRD. It occurs to me that if a new manufacturer such as you are is going to take the same length of time as an old manufacturer—I am speaking in the sense of having experience—then it is better to enlarge existing plants than it is to go into new plant, because if it takes 6 and 7 years, if there is any war or anything should happen, the war would be over by that time.

Mr. HENRY J. KAISER. I can give you a comparison of ships. I can tell you that Douglas Aircraft laid their learning curves on our ship curves and they are identical.

Mr. EDGAR F. KAISER. It is the same thing on a learning curve, Senator. The same identical thing.

Senator BYRD. I think it is pertinent to find out what it cost Fairchild when they made their first planes and what it cost Kaiser-Frazer. You say it cost you a good deal more.

Mr. EDGAR F. KAISER. No, I did not say that.

Senator BYRD. What did you say?

Mr. EDGAR F. KAISER. I did not say a good deal more. I said "more."

Senator BYRD. What do you mean by "more"?

Mr. EDGAR F. KAISER. We will give you that, we will give you our costs.

Senator BYRD. It may be a good deal more.

Mr. EDGAR F. KAISER. It could be.

Senator BYRD. You say you do not know.

Mr. EDGAR F. KAISER. Would you give me the benefit the other way and say it might not be so much?

Senator BYRD. I will not give you the benefit unless you state with greater accuracy than you are now stating when you say you do not know. It might be more and it might be less. Nobody knows. How do you know it is more?

Mr. HENRY J. KAISER. If it is more we will give you the weighted factors that cause it. If it is less we will give you the weighted factors that cause that. We will give you that information. But you cannot get that in 15 minutes, honestly you cannot. That is a complicated analysis. If you saw the fellows that I saw last night analyzing it you would recognize what it means. I consider we have the foremost engineers in the United States on that trying to get that here to you today. We could not make it in the form you want it in. But we will make it in the form you want it in, because I think you have a very sincere point about this.

Senator BYRD. I am trying to find the facts.

Mr. HENRY J. KAISER. We will get it for you. We cannot give it to you in 15 minutes nor can you or I, in 15 minutes or 1 hour, get it through analysis.

Senator BYRD. I did not ask for it in 15 minutes. You have something here that confuses the thing much more than it was before, if anything, if that could be possible. It would have been better not to have brought anything in this morning.

Mr. HENRY J. KAISER. I thought of bringing nothing at one time because I knew what you wanted. I knew there was a time factor in particular. I will get it for you and you will be proud of it.

Senator BYRD. I hope so. I will be proud if you will show less costs.

Mr. HENRY J. KAISER. I will show you the costs.

Senator BYRD. I am not proud of the record made up to date.

Mr. HENRY J. KAISER. You haven't got our record yet, comparatively speaking. You just asked for it a few minutes ago.

Senator BYRD. We have the costs for the United States Government, the people who pay the bills. They say "How many planes are to be produced?" We have that. We are not going back to causes. That is another thing. There may have been good causes. I do not think there is anything to be proud about, these enormous costs.

Mr. HENRY J. KAISER. Senator Byrd, we have a record in this country that you and we can be proud of on all production. You would be surprised when you get it all. You will get it in great volume, too. It is the very thing we are contending here.

Senator BYRD. Do not make it of such volume that a Senator with a great deal of other work cannot understand it.

Mr. HENRY J. KAISER. We will make it simple for you.

Senator BYRD. If it is simple it will be the first simple thing in this hearing.

Mr. HENRY J. KAISER. I agree with you.

Senator BYRD. Remember, we are busy men. We have a lot more work than on this committee. We are on the Finance Committee, Armed Services, and other committees. We have to have this presented to us in a way that we can understand it.

Mr. HENRY J. KAISER. I agree with you.

Senator BYRD. I never could make anything out of charts. Maybe you can. I want to see it written down in black and white where I can study it. So far as I am concerned I would rather not have any charts about it. I want to get it down. You have these curves this way and curves that way; it takes a Philadelphia lawyer to know what they mean. Let us get it down in black and white, how many planes, the cost, and when you are going to reduce the cost of them, and so forth and so on.

(Documents referred to are as follows:)

The information requested by Senator Byrd follows below in narrative form. It consists of two parts:

(a) A narrative explanation of what is meant by the "aircraft learning curve."

(b) A narrative explanation of Kaiser-Frazer's cumulative average unit cost per C-119 for the 78.6 equivalent planes completed through May 31, 1953, the estimated cumulative average unit cost for the 159 planes covered by the contract, and the estimated cumulative average unit cost for 820 planes and 1,071 planes (1,071 is the total number of C-82's and C-119's built by Fairchild for which cost data are available). The estimates for 820 and 1,071 planes are based on a projection of costs actually experienced to date in accordance with the standard method of calculating a learning curve in the aircraft industry.

Also attached is a chart showing the results of the above computations in graphic form. The chart is prepared on so-called log log paper, which has the effect of converting the learning curve into a straight line which can be projected to show estimated costs on additional quantities of aircraft.

The data which follow show that when Kaiser-Frazer reaches its 820th airplane, the cumulative average unit cost of the first 820 planes is \$460,000 each, and that the average unit cost of each plane from number 820 to number 1,071 is \$224,000 each.

#### KAISER MOTOR CO. AIRCRAFT LEARNING CURVES

The aircraft industry has learned from experience that the direct labor-hours required to produce an airframe of a given model decreases with each succeeding model produced. This reduction is the result of the increasing familiarity of the workers with that particular aircraft, and is equally true both in the case of inexperienced aircraft workers in a new plant and of experienced workers in an established plant starting a new model. In the case of the new plant with



inexperienced aircraft workers the first airplane would most likely require more man-hours to produce than would be required in the established plant, but in both cases a continuing reduction of man-hours would occur on subsequent airplanes.

Analysis by AMC and by the aircraft industry of production records of World War II has established the fact that this improvement follows a definite trend or curve. This trend may be simply expressed as follows:

Each time that the number of aircraft produced is doubled, the average number of man-hours per airplane for the doubled quantity is a percentage of the average number of man-hours per airplane in the original quantity. This percentage generally varies between 70 and 80 percent. A simple illustration of this relationship follows.

A plant produces 10 airplanes of a given model for 100,000 direct man-hours or an average of 10,000 man-hours per airplane. When 20 airplanes of the same model have been produced the total man-hours for the 20 planes will be 160,000, or an average for each of the 20 planes of 8,000 man-hours. 8,000 is 80 percent of 10,000, so that the improvement or learning curve on that particular plane in that particular plant is 80 percent.

From the mass of data available mathematical formula have been developed which enable one to establish the relationship between any individual airplane in a series and the cumulative average at that point. Extensive studies made by Stanford University since the war have led to improvements and refinements in the basic formula so as to increase the accuracy of the results which can be obtained.

With these formula it is possible, after any number of aircraft of a given model have been built in a plant, to predict within reasonable limits of accuracy what the cost will be for any succeeding number of the same aircraft. Furthermore, the data proves conclusively that in order to compare the performance of two producers of the same aircraft it is essential to make the comparison for the same number of airplanes produced.

It must always be remembered that the learning curve theory does not mean that an inexperienced group of workers learn to produce a given airplane, and having once learned, continue to produce at the same cost, but that any group of workers, even though experienced in aircraft production, will start a new model at a relatively high cost and continue to reduce this cost on succeeding units produced.

#### PROJECTED COST OF C-119 AIRPLANES AT WILLOW RUN

##### *Method of constructing curve*

1. The total accrued costs to date with the exception of material, tooling, portable pools, plant rearrangement and clause 4, no fee items, were tabulated, as of the end of each month for the period October 1952 through May 1953.

2. The equivalent airplanes completed were tabulated for the same periods. October 31, 1952, was used as the starting point because this is the first date on which the equivalent airplanes completed was calculated. On October 31, 1952, 39 equivalent airplanes had been completed. On May 31, 1953, 78.6 equivalent airplanes had been completed.

3. Material costs for each month end were calculated by multiplying the average estimated material cost per airplane (\$90,371) by the equivalent number of airplanes completed.

4. The total estimated cost for tooling, portable tools, plant rearrangement and clause 4, no fee items, including subcontractors, amounting to \$25,587,000, was divided by 159 airplanes. This resulted in an average cost of \$160,924 per airplane. The cost of these items for each month end was calculated by multiplying the number of equivalent airplanes completed by this unit.

5. The total fee at each month end was calculated by multiplying the total number of equivalent airplanes completed at the end of each month by the average fee per airplane exclusive of spares (\$41,346).

6. The summation of the above factors resulted in the cumulative average cost per airplane at the end of each month. A tabulation of these calculations is attached.

7. The KMC estimate of cost dated May 8, 1953, was used to determine the average unit cost of 159 airplanes.

8. The cumulative average unit costs were plotted on log paper, in accordance with accepted methods in the aircraft industry for determining the slope of the learning curve. This showed that between airplanes Nos. 72 and 78 (the number of equivalent aircraft actually completed at the end of May 1953), the slope of the curve was approximately 70 percent. It also showed that between airplanes

Nos. 78 and 159, based on the KMC estimate of cost dated May 8, 1953, for completing 159 airplanes, the slope of the curve continued at the same rate of approximately 70 percent. This rate of approximately 70 percent from airplane Nos. 72 through 78 to 159 was therefore projected for 1,071 planes, which is the total number of C-82 and C-119 airplanes built by Fairchild for which cost data are available.

9. The costs enumerated in paragraph 4, amounting to \$160,924 per airplane, were all written off on the first 159 airplanes and are nonrecurring. Therefore another curve (dotted line) parallel to the first curve but \$160,924 lower at airplane 159 was drawn and projected to 1071 airplanes. This curve represents the projected cumulative average unit costs at Willow Run without the costs enumerated in paragraph 4.

10. The average unit costs for airplanes Nos. 820 through 1071, which is the last block for which we have cost data at Fairchild, was computed from this curve as follows:

Cumulative average unit cost airplane No. 820 is \$460,000.

Cumulative average unit cost airplane No. 1071 is \$405,000.

Cumulative total cost—

820 airplanes at \$460,000 equals \$377,200,000.

1071 airplanes at \$405,000 equals \$433,755,000.

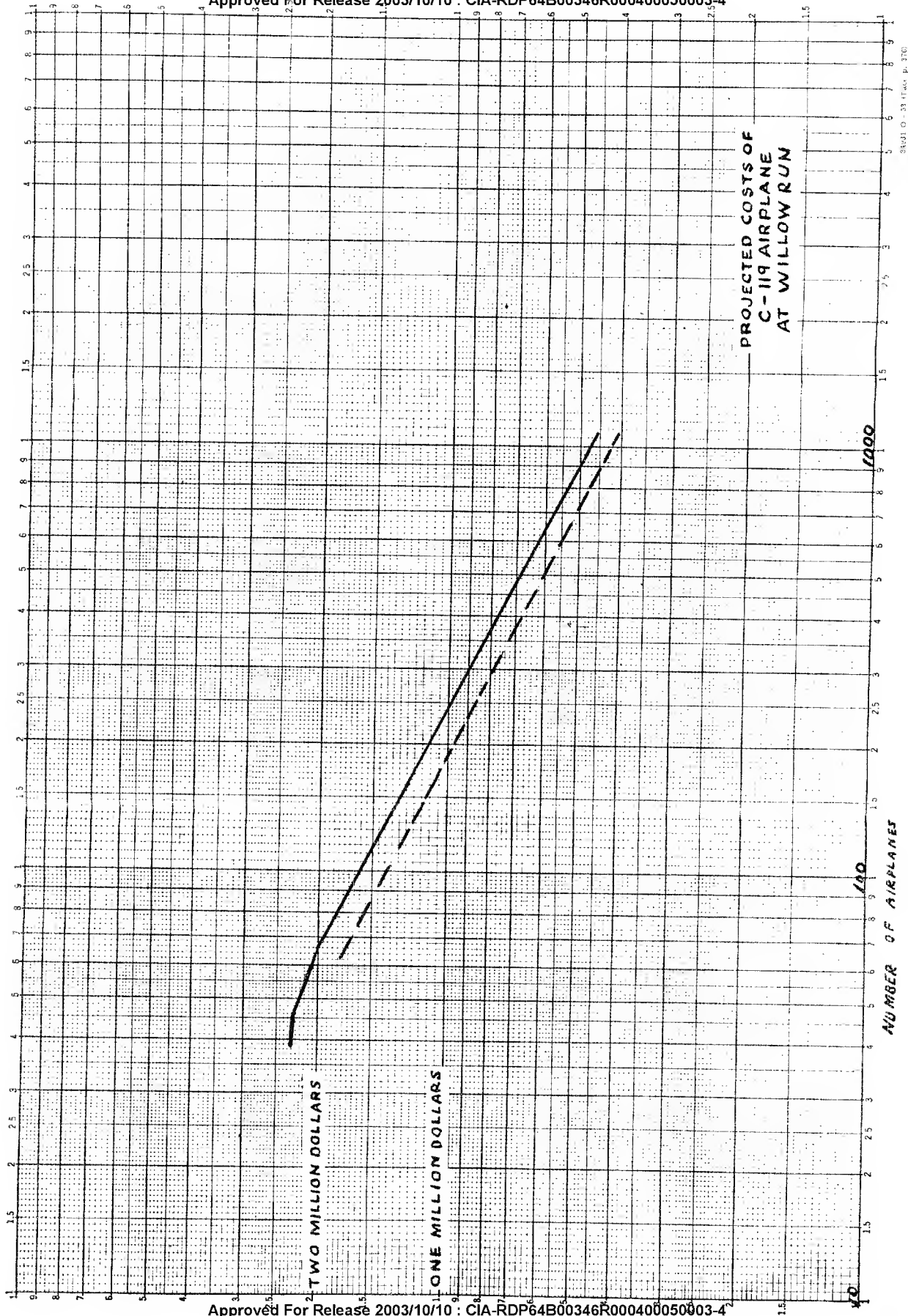
Difference, \$56,555,000.

This represents the cost of airplanes Nos. 820 through 1071, or 252 airplanes. \$56,555,000 divided by 252 equals \$224,000 per airplane.

These costs are all without tooling and plant rearrangement as enumerated in paragraph 4. It is recognized that there will be some continuing tooling costs because of replacements and changes. This is assumed at \$30,000 per airplane for all airplanes subsequent to 159. Therefore by adding \$30,000 to \$224,000 we arrive at an average cost of \$254,000 per airplane for all airplanes from No. 820 to 1071, inclusive.

11. In order to project the curve beyond airplane 159 so as to include the continuing tooling cost of \$30,000 per airplane, the following computations were made:

Total cost of 1,071 airplanes without tooling and rearrangement (from par. 10 above).....	\$433, 755, 000
Tooling and rearrangement costs included in first 159 airplanes (from par. 4).....	25, 587, 000
Tooling costs allowed for airplanes 160 through 1,071, 911 airplanes at \$30,000.....	27, 330, 000
<b>Total cost 1,071 airplanes.....</b>	<b>486, 672, 000</b>
<b>Cumulative average unit cost 1,071 airplanes.....</b>	<b>454, 408</b>



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*C-119 airplanes construction of curve for C-119 airplanes for Bridges Committee—Total cumulative costs*

	October 1952	November 1952	December 1952	January 1953	February 1953	March 1953	April 1953	May 1953	Completion
Labor.....	\$9,627	\$10,716	\$12,574	\$13,634	\$14,675	\$15,877	\$17,105	\$18,284	\$23,331
Burden.....	44,710	47,876	50,806	53,875	56,904	59,933	61,872	64,388	70,284
Engineering.....	3,587	3,711	3,866	4,027	4,173	4,328	4,473	4,623	4,896
Administrative.....	3,822	4,081	4,407	4,685	4,963	5,241	5,519	5,804	6,088
Home office.....	936	1,011	1,099	1,171	1,261	1,330	1,428	1,510	1,510
Subtotal.....	62,682	67,395	72,552	76,992	81,193	85,501	89,596	93,899	115,319
Subcontractors (planes only).....	15,661	17,125	18,920	20,871	22,651	24,524	26,241	28,042	30,183
Material.....	3,524	3,832	4,143	4,391	4,651	4,966	5,241	5,519	5,804
Special tooling.....									19,354
Portable tools.....									1,704
Plant rearrangements.....									2,400
Clause 4—no fee items.....									2,039
Subtotal.....	6,276	6,826	7,386	8,175	9,173	10,267	11,490	12,649	25,387
Total cost.....	88,143	95,173	103,015	110,629	118,168	126,038	133,725	140,593	191,463
Fee.....	1,612	1,753	1,898	2,100	2,337	2,638	2,932	3,230	6,374
Total selling price.....	89,755	96,926	104,913	112,729	120,505	128,696	136,677	143,843	198,037
Equivalent airplanes completed.....	39	42.4	45.9	50.8	57.0	63.8	71.4	78.6	159
Cumulative unit cost.....	\$2,301	\$2,286	\$2,280	\$2,219	\$2,114	\$2,017	\$1,911	\$1,830	\$1,245

Mr. ANTON. Mr. Miller, did you prepare the chart on the pounds per man-hours?

Mr. MILLER. No; I did not.

Mr. ANTON. Applying that to the weight of the plane, and possibly somebody can answer this, does that equal 6,000 man-hours per plane at that point?

Mr. MILLER. No. You have the reverse. It is not pounds per man-hour. It is man-hours per pound.

Mr. ANTON. It is five man-hours per pound?

Mr. MILLER. Yes. It is probably 30 pounds—

Mr. ANTON. Did you use 29,000 or 30,000 as the weight of the plane?

Mr. MILLER. I did not prepare that chart so I do not know. We used 30,000 to a point, and then it was—

(Statement supplied is as follows:)

The weight of the C-119 airframe used on all charts and other data submitted by Kaiser-Frazer witnesses at the hearing is 28,739 pounds.

Mr. ANTON. That would be 150,000 man-hours up to that point when you began the chart.

Mr. EDGAR F. KAISER. I do not know that. I can furnish it.

Mr. ANTON. You say 5 man-hours per pound?

Mr. EDGAR F. KAISER. Let me furnish that to you.

Mr. ANTON. That is direct labor?

Mr. EDGAR F. KAISER. I do not want to say that is so.

Mr. ANTON. You said in talking to us about that chart that it was direct labor.

Mr. HENRY J. KAISER. Do you not want the information accurately?

Mr. ANTON. Yes. As you have pointed out, Mr. Kaiser, these charts mean a lot.

Mr. HENRY J. KAISER. They do to you but they do not to Senator Byrd. We will get what you want if you will just sit down—you have been in our offices. You know we work at this thing accurately. We will give you the information.

(Information previously inserted.)

Mr. ANTON. The committee also would like the breakdown between the direct and indirect.

Mr. HENRY J. KAISER. Just tell us what you want. You have had no trouble getting anything from us that you want at any time. We will give it to you. Then you can present it.

Mr. ANTON. That is fine.

The CHAIRMAN. Mr. Rhodes?

Mr. RHODES. I have several questions I would like to ask. First of all, referring Mr. Edgar Kaiser to the earlier statement of Mr. Henry Kaiser that a thorough study had been made of General Cook's statements before this committee. Let me direct your attention to the statement you quoted this morning—

Mr. EDGAR F. KAISER. Right.

Mr. RHODES. You quoted a statement from General Cook in which he went on to say why it was that a second source was more expensive and the costs of a second source were greater than those of a prime contractor. That was made, I believe, a day or so prior to the statement which was made by the chairman this morning, Senator Bridges,

which later statement I believe you will agree was rather uncomplimentary of the performance.

Mr. EDGAR F. KAISER. We have already commented on it.

Mr. RHODES. What I am trying to get at and I want you to get it for the record, is that the statement which General Cook made and the one which you read would apply to anybody, any second source. That is a fair statement; is it not?

Mr. EDGAR F. KAISER. Yes.

Mr. RHODES. It was made earlier than the statement the chairman made.

Mr. EDGAR F. KAISER. I think the statement he made here—I am just looking at it—did refer specifically to us.

Mr. RHODES. Is it fair to say that that sort of statement would apply to any second source just getting started in the business?

Mr. EDGAR F. KAISER. Yes.

Mr. RHODES. The time factor, I want that particularly clear; he made that a day or so earlier than the one which the chairman read.

Mr. EDGAR F. KAISER. Right.

Mr. HENRY J. KAISER. Yesterday I stated I was going to file for the record a detailed statement. Copies of this 88 page statement were supplied to you yesterday. I now wish to formally present the statement and request that it be a part of the record of these hearings.

The CHAIRMAN. It may be filed for the record.

The CHAIRMAN. We will go off the record.

(Discussion off the record.)

The CHAIRMAN. The committee will come to order.

Both Mr. Henry and Mr. Edgar Kaiser informed the committee of information which has come to them informally. As a result of this information and their talk with the committee the committee will recess now to a hearing date to be determined and set by the committee at some subsequent time, which will probably be in the early future.

The committee is adjourned.

(Whereupon, at 11:58 a. m., the committee adjourned, to reconvene subject to the call of the Chair.)

MEMORANDUM SUBMITTED BY KAISER MOTORS CORP. TO THE  
SENATE ARMED SERVICES COMMITTEE'S SUBCOMMITTEE ON  
AIRCRAFT PROCUREMENT

This memorandum supplements the statement presented by Mr. Henry J. Kaiser to the Senate Armed Services Committee's Subcommittee on Aircraft Procurement on June 23, 1953. The memorandum presents detailed factual evidence to correct and supplement the record of the subcommittee's hearings held to date with respect to the award of contracts to produce the C-119 cargo plane.

The memorandum takes up the following subjects in the order stated:

- I. How and why the contract was awarded.
  - A. The actual chronology of the negotiations between the Air Force and Kaiser-Frazer which led to the award of the contract.
  - B. The reasons for moving rapidly in December 1950 to create a second source for C-119 aircraft.
  - C. Kaiser-Frazer's qualifications to receive a second source contract.
- II. Cost comparisons with other producers.
  - A. Comparison with Fairchild costs.
  - B. Comparison with costs of other second source producers.

- III. Comparisons of our performance with the original agreed estimates.
  - A. The technical assistance program.
  - B. Time of performance.
  - C. Cost of performance.
- IV. Propriety of claims for reimbursement.
  - A. Allocation of costs between automotive and aircraft production.
  - B. Specific items mentioned at the hearings.
- V. Other corrections of the record.
  - A. No commitments were violated by our acquisition of an interest in Chase Aircraft Co., designer of the C-123 cargo plane.
  - B. Kaiser-Frazer receives no greater degree of Government assistance than other defense contractors.
  - C. Kaiser-Frazer does not have and did not use political influence to obtain the contract.

#### I. HOW AND WHY THE CONTRACT WAS AWARDED

##### SUMMARY

1. December 1950 was a time of national crisis. The need to expand production of aircraft and other weapons immediately was obvious to all. New plant capacity had to be brought in to achieve the production goals then desired. Willow Run—built in World War II especially for the mass production of large aircraft—was an obvious choice. Kaiser-Frazer owned Willow Run. The reputation of Kaiser management for mass production under emergency conditions was well known.
2. Accordingly, we were awarded an Air Force contract as a second source for the C-119 at Willow Run. We were to tool up for 93 planes per month, and were programmed to produce at least 1,000—not 159—as soon as possible. At the same time, similar second source contracts were awarded to General Motors and Lockheed for other types of planes. All these decisions were made on their merits.
3. Under the circumstances that existed in December 1950, the Air Force was fully justified in creating a second source for the manufacture of C-119 aircraft, and in selecting Kaiser-Frazer Corp. to perform this second source contract at Willow Run.
4. We describe in detail below:
  - A. The actual chronology of the negotiations between the Air Force and Kaiser-Frazer which led to the award of the contract.
  - B. The reasons for moving rapidly in December 1950 to create a second source for C-119 aircraft.
  - C. The qualifications of our company to receive a second source contract.

##### A. THE ACTUAL CHRONOLOGY OF THE NEGOTIATIONS BETWEEN THE AIR FORCE AND KAISER-FRAZER WHICH LED TO THE AWARD OF THE CONTRACT

1. During World War II the Government's Defense Plant Corporation built a modern mass-production aircraft plant at Willow Run, Mich. The plant was occupied during the war by Ford Motor Co. in order to perform defense contracts for the manufacture of B-24 bombers. Parenthetically, it is interesting to note that Ford was a second source for the B-24, the designer and prime source being Consolidated Vultee.<sup>1</sup>
2. After World War II the Willow Run plant was declared surplus and offered for sale or lease to industry. In 1945 the plant was leased to Kaiser-Frazer Corp. which had just been formed to manufacture automobiles. Kaiser-Frazer was the only responsible bidder for the plant at the time.
3. In December 1948, while Kaiser-Frazer was occupying the plant under its lease, Kaiser-Frazer agreed to purchase the plant from the Government, subject to agreement on a mutually satisfactory national security clause. At the time Kaiser-Frazer's lease ran for an additional 3 years (through 1951) with successive options to renew for an additional 14 years, through 1965. The lease contained no national security clause.
4. The standard national security clause then offered by the Government gave the Secretary of Defense the right to utilize the plant at any time for the manufacture of the defense item (aircraft) for which it had been designed. The

<sup>1</sup> However, during the war Willow Run was a single-purpose bomber plant, not a dual-purpose plant as it is now.

clause gave the occupant a right of first refusal to manufacture the defense item. When the plant was purchased in 1948 this national security clause was not considered a desirable feature, particularly for a company such as Kaiser-Frazer manufacturing all of its automobiles in a single plant. The reason, of course, was that if the Government exercised its right to use the plant to manufacture some other defense item, the manufacture of automobiles might have to stop. In fact, another automotive manufacturer purchasing a surplus plant about the same time succeeded in negotiating a substantial reduction in the purchase price in consideration of accepting the national standard security clause. We therefore proposed to the Government a modified national security clause.

5. However, after extensive negotiations, Kaiser-Frazer agreed to accept the standard national security clause and consummated the purchase of the Willow Run plant in November 1949. Almost simultaneously the Air Force advised Kaiser-Frazer that it wished to enter into negotiations for an industrial preparedness study, looking toward the manufacture of aircraft at Willow Run. During January of 1950, Kaiser-Frazer officials met with Boeing officials at the request of the Air Force to discuss proposed schedules and subsequently to make an industrial preparedness study for the manufacture of B-50-D aircraft at Willow Run. Kaiser-Frazer delivered this study to the Air Force on February 21, 1950.

6. The North Korean attack occurred on June 25, 1950. One month later, on July 25, 1950, the Air Force instructed Kaiser-Frazer to revise its study so as to cover the manufacture of the B-47-B bomber at Willow Run, and this study continued through the remainder of 1950. Meanwhile, of course, the actual production of the plant consisted entirely of automobiles.

7. At this time, a shortage of materials for civilian production was arising, and Kaiser-Frazer was, of course, interested in the prospects of obtaining defense contracts which could be performed at Willow Run. On several occasions between June and December 1950, Kaiser-Frazer representatives inquired of the Air Force whether they intended to place any aircraft contracts at Willow Run in the near future. Each time we were advised that as yet no definite program had been established for Willow Run. Kaiser-Frazer continued to submit proposals and negotiate with other departments of the armed services for production of defense items at Willow Run. In most cases, however, we were advised that since we were subject to a national security clause under Air Force cognizance, we should work with the Air Force.

8. Meanwhile, Kaiser-Frazer had carried on extensive negotiations through September, October, and November 1950, with the Reconstruction Finance Corporation for a \$25 million loan. These negotiations were finally concluded and the Reconstruction Finance Corporation announced approval of the loan<sup>2</sup> on December 5, 1950. It is important to note, contrary to public impression, that this RFC loan was the result of almost 4 months of negotiations, and was not something that was accomplished in 1 day. The RFC loan resolution required Kaiser-Frazer to "make \* \* \* conscientious efforts to obtain defense work and \* \* \* give priority to any such work obtained over the production of automobiles."

9. All of the negotiations with the RFC extending over a long period as mentioned above had been handled personally by Mr. Edgar F. Kaiser. Mr. Henry J. Kaiser did not participate in them. However, toward the very end of the negotiations when the RFC Board was insisting that the guaranty of the Henry J. Kaiser Co. be increased, Mr. Henry Kaiser, as the principal guarantor, came to Washington, D. C., just prior to December 5, 1950, since he was then directly involved.

10. On the same day, in compliance with the RFC directive to "make conscientious efforts to obtain defense work," Henry Kaiser and Edgar Kaiser sought an interview with Hon. John McCone, then Under Secretary of the Air Force in charge of procurement. The Kaisers had previously known Mr. McCone, since they had both been engaged (in different companies) in the construction business in the Far West and their companies had participated in several construction joint ventures and wartime shipbuilding joint ventures. For several years before the meeting on December 5, the Kaisers and Mr. McCone had had no joint business interests or relationships of any kind.

11. November and December of 1950 were the occasion of the Chinese Communist invasion of North Korea, one of the gravest crises in the entire Korean war. At this time, the Armed Forces were rapidly accelerating their plans for the procurement of all types of military equipment, with the encouragement of the Congress.

12. At the meeting, Henry and Edgar Kaiser advised Mr. McCone of the RFC's instructions to make conscientious efforts to obtain defense work. They pointed

<sup>2</sup> This loan has since been repaid in full.



out that the Willow Run plant was subject to a national security clause, and that industrial preparedness studies had been conducted to manufacture first the B-50 and now the B-47 at Willow Run. They inquired whether the Air Force was yet in a position to go forward with the actual production of aircraft at Willow Run. They also requested that if the Air Force was not ready to go forward it release Willow Run from Air Force cognizance so that the Kaiser-Frazer Corp. could negotiate with the other armed services for the manufacture of other items. Mr. McCone called into the meeting Gen. K. B. Wolfe, then Deputy Chief of Air Staff Materiel, and Lt. Gen. Edwin C. Rawlings, Comptroller of the Air Force. The subject of producing the B-47 jet bomber was first discussed. During the meeting, General Wolfe proposed that, instead of the B-47 it might be preferable to use the plant for the production of the C-119 cargo plane. In the course of the meeting, the construction of fighter planes was also discussed. As a result of the meeting, Kaiser-Frazer was requested to prepare and submit studies for the manufacture of the B-47 and the C-119 at Willow Run.

13. This was the first occasion on which any Kaiser-Frazer representative was apprised of an Air Force interest in having C-119's produced at Willow Run. Because of its interest in obtaining defense work and the instructions of the RFC to make conscientious efforts to do so, Kaiser-Frazer proceeded diligently to acquaint itself with the C-119 and to prepare a proposal. Pursuant to arrangements made by General Wolfe on December 5, Kaiser-Frazer officials met with Fairchild officials at Hagerstown, Md., on December 6, to discuss the subject and request necessary technical data. However, very little data was furnished at this time.

14. On December 19, 1950, Kaiser-Frazer submitted to the Air Force separate studies for the manufacture at Willow Run of C-119 and B-47 aircraft. Neither of these studies was in any sense a firm proposal for the manufacture of stated quantities of aircraft at a stated price or estimated price. The studies did not refer to price at all, and simply analyzed the technical capabilities of the Willow Run plant and Kaiser-Frazer management to produce aircraft on a mass-production basis. It should be noted, however, that the C-119 study was based on a production schedule of 100 planes per month and a total production of more than 1,000 planes over a 2-year period. Even the figures were well below the productive capacity of the plant, then estimated to be 375 planes per month with automotive production continuing and 500 planes per month with automotive production terminated.

15. On December 20, 1950, the Air Materiel Command at Wright Field issued a standard form letter of intent to Kaiser-Frazer Corp. for the production of 134 C-119 type C aircraft at Willow Run, subject to the terms and conditions of a formal contract fixing price, schedules, etc., which was to follow. The letter of intent stated that the type of formal contract contemplated was a fixed-price contract.<sup>3</sup> Although the letter of intent was for only 134 planes, Kaiser-Frazer was advised by the Air Force that it would be amended to 200 C-119's plus spares as soon as budget funds were available. The total figure of 1,000 planes referred to in paragraph 14 above was a Kaiser-Frazer figure and was used solely for the purpose of showing a cumulative building schedule. However, the Air Force advised that it was contemplated that additional C-119's over and above the initial 200 would be ordered if the requirement continued.

#### B. THE REASONS FOR MOVING RAPIDLY IN DECEMBER 1950 TO CREATE A SECOND SOURCE FOR C-119 AIRCRAFT

1. With the Korean armistice apparently at hand, it is natural to forget the grave situation that confronted this country in November and December of 1950. The successful Inchon landing and the advance to the Yalu River had been followed by the movement in force of the Chinese Communist armies from Manchuria into North Korea. The United Nations forces were in a desperate position. The war in Korea promised to continue for a considerable period. World War III appeared to be imminent.

2. The atmosphere that prevailed at the time is reflected by the following story on page 1 of the New York Times for November 30, 1950:

<sup>3</sup> The Air Force on its own initiative later changed this to a cost-plus-fixed-fee contract.

"SENATORS, JOLTED, ASK ARMY TO CALL FULLY UPON CONGRESS

"WASHINGTON, November 29.—The Senate Armed Services Committee, profoundly shocked by a briefing on the position in Korea, invited the military authorities today to ask Congress for any sort of action that might be useful in the crisis.

"This was announced by Senator Millard E. Tydings, Democrat of Maryland, after the committee had consulted for 2 hours with Robert A. Lovett, Deputy Secretary of Defense, and Lt. Gen. Alfred M. Gruenther, Deputy Army Chief of Staff Plans."

3. The crisis continued throughout December 1950. Like the other armed services, the Air Force was under great pressure to expand the production of military aircraft as rapidly as possible. The desired production rate could not be achieved in the plants then manufacturing aircraft, and new productive capacity had to be opened up. Thus, as former Under Secretary of the Air Force John McCone testified at these hearings, the requirement for C-119's in December 1950 was 1,800 additional planes. The only plant producing C-119's at the time—the Government-owned plant at Hagerstown, Md., operated by Fairchild—was building only 8 planes per month, and had a maximum capacity of only 33 to 35 planes per month. In order to achieve an output of 1,800 C-119's within the required time, a production rate of about 135 planes per month was required (transcript, p. 17).

4. Obviously, it would not have been possible to achieve a production rate of 135 planes per month without bringing in an additional plant to manufacture C-119's. This could have been accomplished either by utilizing an idle Government plant or plants, or by utilizing a private plant not then producing aircraft. The first course presented serious difficulties outlined by Mr. McCone at pages 17-19 of the transcript. The available Government plants were either required for more urgent programs, such as B-47 bomber production, or were being utilized for nonmanufacturing purposes considered equally urgent—such as the headquarters of the Strategic Air Command.

5. The second course—utilizing a private plant not then manufacturing military aircraft—offered a method of avoiding these difficulties. Moreover, it was consistent with the plan then being developed by the Secretary of Defense to broaden the industrial base of the procurement program. As stated by Mr. McCone in his testimony, this "second source" policy "directed the services to spread contracts across industry as widely as possible; and to accomplish this by the wider use of negotiation versus formal bidding procedure; to avoid concentration of contracts with a few leading suppliers; to utilize existing open industrial capacity to the maximum, and, among other things, to utilize available manpower in distressed employment areas" (transcript, p. 14).

6. The operation at Willow Run was set up as a "dual-purpose plant," ready for quick conversion in the event of all-out mobilization. This "dual-purpose plant" idea was strongly advocated by the present Secretary of Defense, Mr. Charles E. Wilson. The following is an excerpt from a speech he made October 4, 1951, to the American Ordnance Association:

"If instead of such dual-purpose plants, separate plants are planned—those producing war materials exclusively and those producing civilian products exclusively—there is bound to be dislocation of hundreds of thousands of workers as shifts are made from one type of production to the other. Dual-purpose plants, while giving the Nation the security that would result from the ability to quickly convert from peace to war production, will at the same time put the emphasis on peace, not war. They will avoid the expense and waste of building and maintaining large plants planned only for war production. They will avoid creating and maintaining organizations and businesses whose interests and profits would depend only on war production, and of creating jobs for hundreds of thousands of employees whose job security would depend on war or the preparation for war. Such a plan for dual-purpose plants is consistent with our American objective of promoting world peace through strength and preparedness."

7. The need for speed was just as important as the need to open up additional productive capacity to be operated by second source contractors. The C-119 contract awarded to Kaiser-Frazer Corp. was not the only second source contract awarded at this time. Within a span of approximately 3 weeks the Air Force awarded 3 second-source airframe contracts—one to Kaiser-Frazer for the C-119, to be performed in the Kaiser-Frazer plant at Willow Run, one to General Motors for the Republic F-84 fighter, to be performed in the Government-owned plant

at Kansas City, and one to Lockheed for the Boeing B-47 bomber, to be performed in a Government-owned plant at Marietta, Ga.

8. The Air Force was interested in developing additional subcontract sources, particularly, in the Detroit area. Their purpose was to bring tooling manufacturers into the aircraft program so as to expand the Air Force tooling capacity base. In line with this policy, we were told that we should use alternative tooling vendors to produce our aircraft tooling. We were also advised that we should point toward a 50-percent subcontract program.

#### C. KAISER-FRAZER'S QUALIFICATIONS TO RECEIVE A SECOND SOURCE CONTRACT

##### 1. *The Willow Run plant*

Kaiser-Frazer was and is the owner of the Willow Run plant. This plant was designed and built during World War II for the specific purpose of mass producing large military aircraft. It is one of the finest mass production aircraft facilities in the world. It contains about 4,000,000 square feet of manufacturing space, and it adjoins an up-to-date operating airfield with supporting hangars and equipment. During World War II it produced approximately 9,000 B-24 bombers and reached a peak of 428 planes per month. It is capable of producing several hundred C-119 planes per month when and if the need arises.

##### 2. *Management*

(a) *Aircraft experience.*—Kaiser-managed companies produced complete military aircraft and aircraft components during World War II, and are now producing important military aircraft components for Lockheed, Boeing, Republic, and Martin, in addition to producing complete C-119 aircraft.

During World War II, a Kaiser management team took over the operation of the Brewster plant at the request of the United States Navy, increased production from 4 Corsair Navy fighter planes to a monthly production of 123, and sharply reduced man-hours and costs per plane. It is a record of which we are all extremely proud, and for which we were highly commended by top Government officials. We did this as a patriotic service at no fee. We had no interest in the company, which had been taken over by the Navy, and we continued to produce the Corsair planes until the Navy requirements were met.

Another Kaiser company (Flectwings, now named Kaiser Metal Products Co.) produced some complete experimental planes, and also produced in World War II a large amount of major component assemblies for Corsairs, Avengers, B-17s, Havocs, and the Hughes F-11. Summary statements describing the World War II work of these companies are already part of the committee's record (transcript, pp. 198-208).

(b) *Production experience in other fields.*—Kaiser-managed companies have a long and successful record of production experience in many fields. A representative list is as follows:

Construction projects: Thirty years of construction experience in the heavy construction field including such major projects as the Cuban Highway (over 500 miles of road construction), Hoover Dam, Bonneville Dam, Grand Coulee Dam, Garrison Dam, Shasta Dam, cement and aggregates, Los Angeles aqueduct, tunnels for the water supply of New York City, Mare Island Shipyard and shore facilities, and Detroit Dam.

Shipbuilding: Wartime construction of 1,490 ships, including 807 Liberty ships built one-third below the average time required by other plants and one-quarter below the average cost of other builders.

Steel: Building at private risk and successfully operating the first integrated steel plant in the Far West, thus becoming the 11th largest steel producer in the country.

Aluminum: Successful operation of 1 of the 3 integrated aluminum companies in the United States with major plants in the States of Washington, Louisiana, Maryland, Ohio, and California.

Cement: Construction and successful operation of the largest single cement plant in the United States and the most important producer of cement, gypsum, and other building materials in the Far West.

Metal products: Successful operation of a metal fabricating company (Kaiser Metal Products Co.) producing automobile and aircraft parts and various types of household equipment sold by Sears, Roebuck & Co., a coowner of the company.

Automobiles: Formation and operation of the first company to succeed in entering the automobile industry since Chrysler in 1927, with more than 700,000 cars already on the road.

## II. COST COMPARISONS WITH OTHER PRODUCERS

### SUMMARY

1. General Cook testified at the hearings that Kaiser-Frazer's costs were not comparable with Fairchild's costs.
2. The following factors must be taken into consideration in order to attempt a comparison with Kaiser-Frazer's costs:
  - (a) Type of aircraft being built.
  - (b) Conditions existing during the period.
  - (c) Percentage of capacity of plant being used in relation to total size of the plant.
  - (d) Percentage of capacity of plant being used in relation to the machine tool and tooling capacity.
  - (e) Changes in design of the aircraft occurring during the building period.
  - (f) Whether or not engineering information was available with sufficient lead time to provide proper planning.
  - (g) Adjustments for actual differences in labor rates and material costs as between areas.
  - (h) Adjustments due to increases in cost on account of inflation.
  - (i) Adjustments for the number of aircraft being built on which plant rearrangement and cost of tooling are being amortized.
  - (j) Adjustments for differences in cost due to plant ownership—that is, whether it is Government-owned and furnished free of charge, or whether it is privately owned.
3. It is obvious from the factors listed above that numerous adjustments must be made by anyone attempting an equitable comparison. These adjustments are matters of opinion on which individuals may reasonably differ. Equitable cost comparisons are not simply a matter of adding and comparing two columns of agreed figures. Assumptions that cannot be proven underlie virtually every figure in the table.
4. At Willow Run the Air Force was buying capacity, in addition to 159 planes. Neither the Hagerstown facility nor any other suitable and then available facility had individually, or combined, the tremendous reserve capacity that exists in Willow Run. Cost comparisons must also take this factor into consideration.
5. The cost comparisons on figures prepared by the Air Force auditors at Willow Run and Hagerstown contain a number of inherent errors, regardless of the validity of the assumptions on the basis of which they are prepared.

### A. COMPARISON WITH FAIRCHILD COSTS

1. Virtually the entire committee hearing on June 5 was devoted to a detailed comparison of the cost of performing the C-119 contract at Willow Run and the cost of performing the various Fairchild C-119 contracts at Hagerstown. We do not believe that the figures presented were comparable in any fair or realistic sense. The testimony of the Air Force officials before this committee was to the same effect (transcript, pp. 20, 232-237, and 395). The primary factors or noncomparability were summarized by General Cook beginning at page 232 of the transcript. General Cook's summary was as follows:

"General Cook, Kaiser-Frazer special tooling which is sufficient to support the originally planned production rate at Willow Run of almost four times the Fairchild current rate is fully amortized over the initial contract quantity, which is normal Air Force procurement practice.

"This means, however, that each airplane's cost from Kaiser-Frazer includes over \$130,000 for special tools. Had Kaiser-Frazer not been phased out of C-119 production and the originally planned large follow-on quantities of over 1,000 airplanes been procured, there would be no further charges for tooling. *This condition exists now with Fairchild, who have charged off all project tool acquisition costs on previously completed contracts.*

"The basic manufacturing plan, process planning, flow sequence and supporting machine tool requirements in Willow Run were established and physically implemented when the required production goal was to establish manufacturing conditions to support optimum production at a rate of 93 airplanes per month.

"Such an expanded layout with production support operations established for high rate production suffers very adversely in regard to production overhead when operated at a small percentage of capacity so that the unit cost of each article produced at low rate bears a shop burden charge of much higher values than would be experienced at shop-load factors more nearly approaching saturation.

*"Fairchild by comparison has a mobilization capacity of only 35 airplanes per month, is geared to a basic manufacturing plan for rates even lower than this, and operates in a total plant area of about 40 percent of the floor space devoted to C-119's alone in Willow Run.*

*"The Kaiser-Frazer organization, at all levels, was to a large degree unfamiliar with the arts and skills peculiar to the production of aircraft. The unit cost of each of the relatively small quantity of C-119's on order includes a significant, but perhaps not directly assessable, cost incurred for training that organization to build airplanes.*

*"It is emphasized that this conversion of skills necessarily took place primarily within the incumbent personnel structure, since wholesale proselyting from other manufacturers then performing to their capacity on equivalent or higher priority programs could not be, and was not tolerated by either Kaiser-Frazer or the Air Force.*

*"In other words, the C-119 contract is paying not only for a specific airplane and future potential for that airplane, but it is also serving as a vehicle for paying for the creation of a hitherto nonexistent capacity in being for the supply of any other type airplane the requirements for which could not be fulfilled in a timely manner from existing sources.*

*"Again, in direct comparison to Fairchild, current Fairchild prices include no such costs because Fairchild has had over 20 years experience as an airplane producer, the last 10 of which have been in relatively large volume programs.*

*"Kaiser-Frazer wage scales are somewhat higher on a labor area basis than Fairchild's, and it is also quite possible that individual productivity per dollar expended is greater at Fairchild because of their more stable labor market.*

*"The cost of plant rearrangement, that is, the compression of an operating automobile manufacturing plant into 40 percent of its original area at Kaiser-Frazer, is entirely charged to the 159 Kaiser-Frazer airplanes.*

*"Fairchild costs include no such item since their plant layout has gradually evolved with no radical changes during 7 years of continuous manufacture of the C-119 and its parent, the C-82.*

*"In the early stages of the program, Kaiser-Frazer quoted delivery schedules which resulted in such abbreviated manufacturing flow times that orderly, balanced, and efficient shop operations were seriously jeopardized. No such condition exists at Fairchild, which is reflective of the relative degree of aircraft experience of the two manufacturers.*

*"The configuration of the airplane ordered from Kaiser-Frazer had not been subject to manufacturing proof by the licensor—Fairchild—prior to Kaiser-Frazer's entry into its production.*

*"This was caused by a slippage in delivery schedules of the R-3350 engine which did not allow support of earlier phased deliveries of C-119's being produced at Fairchild with that engine.*

*"Under the 'broad base' program policy of production support, Kaiser was encouraged to subcontract considerable work, and that, I may add parenthetically, is the reason why there is a difference between the red portions on those two models.*

*"At that time we were told to broaden the subcontracting base, to get subcontractors into the picture so that more people would be trained in aircraft production and aircraft accessory production.*

*"Although their subcontracting was moderate—30 percent of airframe—in comparison to some programs, it is considerably greater than Fairchild's, and involved the same problems of activation in the subcontractor's plants as were experienced by Kaiser-Frazer in Willow Run.*

*"All of the costs of activating these new subcontractors are included in the total cost of the 159 C-119 airplanes at a unit price effect of over \$250,000.*

*"Kaiser-Frazier's direct-labor base for aircraft operations has been almost wholly supported by the C-119 aircraft and concurrent spare-parts program. Fairchild has the advantage of spreading fixed overhead over spares reorders which not only increase the direct shopload but tend to smooth out variations in shoploading.*

*"The stretchout of the reduced C-119 program at Kaiser-Frazer to maintain a balanced working force availability for the subsequent C-123B airplane, which is still in its early stages, has caused additional charges, primarily in overhead—as a function of time—to the C-119 program which are conservatively estimated at \$6 million. This was considered a more desirable alternative than closing down and subsequently reactivating for the C-123 program.*

*"In conclusion, there can be little comparison between two contractors, one operating a large plant at a low rate and the other a small plant at a higher rate;*

one experienced and in going production, the other inexperienced and requiring tooling and training; one preparing for a high peak rate of production as mobilization insurance, the other already in the process of achieving its peak and a considerably lower peak; each with the varying concepts of tooling, overhead and management common to their particular industry.

"Even their methods of computing direct-labor hours and overhead differ, making costs in this area not comparable.

"Under the Kaiser contract, the Air Force set out to create new productive capacity and insurance—both for a growing Air Force and for mobilization reserve and not merely a specific quantity of aircraft." [Italics supplied.]

2. General Cook did not include all of the factors that, in our opinion, need to be considered in determining whether our situation and Fairchild's are comparable, but he did list a number of the important differences in the two operations. For example, he pointed out that Fairchild had charged off all of the project tool-acquisition costs on previously completed contracts. Certainly it would be unfair to permit the public to draw the conclusion that Fairchild's current costs are comparable to K-F's, without making an adjustment for this fact.

3. It is therefore, an entirely false premise to make comparison between Fairchild's current costs and Kaiser-Frazer's current costs on a per-plane basis. Likewise, it is equally fallacious to make the comparison attempted by the committee staff between Fairchild's costs on its first C-119's and K-F's present costs, without taking a number of factors into consideration. The rise in the price level alone makes a tremendous difference. Thus, Fairchild's labor costs for 159 C-119's, as shown at page 297 of the transcript, were primarily incurred in 1948 to 1950 when the prevailing wage rate was substantially lower than it is today. The difference in wage rates is reflected not only in direct-labor costs but in all other costs for overhead, materials, subcontract engineering, tooling, and so forth.

4. Kaiser-Frazer started from scratch in building C-119's. Fairchild's first 159 C-119's were built after Fairchild had already built over 200 C-82's, a plane of the same basic type. We do not understand why this fact was not brought out in the questioning of Mr. Mautner (the Air Force auditor for the eastern district who presented Fairchild's costs), because a substantial portion of the training of labor forces, plant rearrangement, tooling, and similar costs applicable to Fairchild's C-119 work was written off on the C-82 contracts and, therefore, available to the first C-119 contract free of charge. This is a clear instance of unfair comparison.

5. A review of the testimony of Mr. Mautner, Air Force auditor for the eastern district, on page 300, shows that Mr. Anton asked the question—referring to the costs per plane on 71.4 airplanes for Fairchild—as to whether or not these costs included all preproduction costs. Mr. Mautner testified: "On that contract, yes, sir." This evidently implied that there were preproduction costs that had been written off on other contracts, but there was no further questioning on that point. Mr. Anton then asked: "It included all tooling, did it not?" Again, Mr. Mautner testified: "On that contract." But he went further, to say: "They might have had some tooling from the previous contract. I would not know what they would use on that." There was no further questioning as to what costs were incurred for tooling that had been charged to the previous contracts and used free of charge on this contract.

6. Likewise, there was no questioning to develop the fact that the costs for Fairchild as submitted by Mr. Mautner, were for C-119C's instead of C-119F's, and that, therefore, adjustments should be made in order to arrive at a fair comparison.

7. Mr. Mautner also introduced some exhibits, purporting to be costs to the Government of Fairchild's production of its first 71.4, 159, and 412 C-119 airplanes, respectively. If we assume that these figures are correct and properly reflect the cost of planes at these points—which we find very difficult to do because we are certain the costs were not recorded on that basis—our calculations show that, at the 159 plane point, Fairchild's cost per hour for direct labor was \$1.35. We doubt whether this is correct. However, if comparisons are to be made, Kaiser-Frazer's labor rate is \$2.02 per labor hour. The difference is \$0.67 per hour, or about 50 percent over Fairchild's rate when it was building the 159 planes. If Mr. Mautner's figures were correct, and we were attempting to compare labor costs, it would be necessary to adjust Fairchild's costs by adding approximately \$11,195,000 to the Fairchild costs—or an average of about \$70,000 per plane. This is just one example of the adjustments required to make proper comparisons.

8. Adjustments for all of the other factors listed at the beginning of this part II should be made in the Fairchild costs if an attempt is to be made to compare them with K-F costs.

9. To illustrate how many questionable assumptions are built into the estimates of Fairchild's costs prepared by Mr. Mautner, presumably at the direction of the committee staff, for the purpose of making a comparison with Kaiser-Frazer's costs, it is necessary only to make one further assumption—and a very reasonable one—that Mr. Mautner did not make. This is to assume that Kaiser-Frazer's costs on its first cargo-plane contract are comparable to Fairchild's costs on Fairchild's first cargo plane of the same type. The first cargo planes built by Fairchild were not C-119's but C-82's. Fairchild built approximately 200 planes of the C-82 type. The C-119 is basically a modification of the C-82.

10. According to an Air Force press memorandum dated September 29, 1952, Fairchild "had a unit price in excess of \$650,000 on the C-82" in 1947.

11. The C-119 airframe weighs approximately 40 percent more than the C-82 airframe. During Kaiser-Frazer's manufacturing period (1951-52-53) general cost indexes were approximately 50 percent higher than during the period (1945-46-47) when Fairchild built its C-82's.

12. If Fairchild's \$650,000 unit price on the C-82 is adjusted for these 2 facts alone, the results are as follows:

1. Conversion—Airframe weight from C-82 to C-119:	
28,739	
20,400 × \$650,000 .....	\$915,000
2. Conversion—1945-46-47 dollars to 1951-52-53 dollars: \$915,000 ×	
1.5 .....	1,372,000
Adjusted estimated unit price of Fairchild C-82's .....	1,372,000

13. In addition to the adjustments that should have been made in Fairchild's costs for purposes of comparison, other adjustments should have been made in Kaiser-Frazer's costs.

14. Thus, it should have been pointed out that at Willow Run, the Air Force is buying capacity in addition to 159 planes. Several rates of production have been mentioned as maximum capacity for Willow Run. We believe it can conservatively be stated that 500 C-119's per month could be built. Some of our estimates have shown that it is possible to increase this to 600 per month.

15. Equivalent capacity could not have been purchased at Hagerstown, nor at Park Ridge which had been under consideration for reactivation by Fairchild. The Park Ridge facility, as the testimony shows, is in poor condition and requires substantial rehabilitation. Therefore, the Air Force, when it decided to use the Willow Run facility instead of contracting with Fairchild to reopen the Park Ridge facility, was bringing in a much greater reserve capacity by use of Willow Run rather than Park Ridge. Further, as an automobile manufacturer, Kaiser-Frazer had established contacts with automotive tooling vendors who could be, and were, brought into the aircraft tooling program, which further broadened the mobilization base, by creating the capacity of an additional family of aircraft subcontractors.

16. Next, in order to have a figure to compare with the Fairchild cost, the Willow Run Air Force auditor prepared an estimate of cost for completion of the 159 planes. This estimate totaled \$212,923,341. A check of his addition shows that it should be \$213,923,341. This estimate was not checked with Kaiser-Frazer and we do not agree with it. Our reasons for disagreeing are set forth in detail in part III-C of this memorandum. For the reasons there stated, we believe that under present circumstances a truer picture of Kaiser-Frazer's contract cost is our estimate of May 8, 1953, which shows a total contract cost of \$198,525,182. Divided by 159 planes, this gives a unit cost of approximately \$1,248,580, if special tooling, preproduction expense, and plant rearrangement are included in plane costs, as Mr. Solomon computed plane costs in his testimony.

17. However, this figure must be adjusted before it can properly be compared with Fairchild's costs. For example, Fairchild had no plant rearrangement cost—Kaiser-Frazer had over \$4 million. Fairchild had only \$72,000 of preproduction expenses, since it had already made the similar C-82 plane for several years, while Kaiser-Frazer had \$19 million, including preproduction cost of its subcontractors. Fairchild had approximately \$4,400,000 of special tooling, according to the Air Force resident auditor—Kaiser-Frazer had more than \$19 million.

18. There is a reason why the tooling and plant rearrangement costs that Kaiser-Frazer will incur in the performance of the contract seem large when compared to the small amounts for Fairchild. Fairchild had amortized its original tooling costs over a large number of both C-82's and C-119's so that these tooling costs are not reflected in Mr. Mautner's estimates used in the testimony.

19. In addition, the tooling amount is higher on a comparative basis because Kaiser-Frazer was asked to tool for a much larger planned capacity than necessary to produce 159 planes on the contract schedule. Therefore, more tools of a more durable nature were required by Kaiser-Frazer than was the case with Fairchild, whose capacity is only 33 to 35 planes per month.

20. Kaiser-Frazer charges of this type, including loss of value in removing automotive equipment amounting to approximately \$2 million,<sup>4</sup> totals approximately \$44,680,000 for Kaiser-Frazer, and \$4,487,000 for Fairchild. The excess cost to Kaiser-Frazer over that spent by Fairchild is \$40,194,000, which, divided by 159, equals approximately \$253,000 per plane. This illustrates the type of adjustments that have to be made before a fair comparison of Kaiser-Frazer costs with Fairchild costs can even be attempted.

21. Starting on page 333 of the transcript, Mr. Solomon submitted a schedule of incurred costs, purporting to represent the costs on the first 71.4 equivalent airplanes built at Willow Run. The footnote on the costs (tr., p. 337) states: "With the time limitations imposed it has not been possible for either the contractor or the auditor to evaluate these costs in the computation of the equivalent airframes completed." If we understand the computation correctly, it appears that Mr. Solomon has included, as chargeable against the 71.4 equivalent ships, our entire 772,000 training hours, instead of distributing them proportionately over the 159 planes. The schedule also amortizes the entire subcontract costs to date, including tooling<sup>5</sup> and plant rearrangement, on 71.4 airplanes. It appears obvious that this should have been written off over 159 planes. The entire preproduction expense of \$21,269,293, according to the schedule, is written off against 71.4 equivalent airplanes.

22. Senator Flanders questioned this method of amortizing special tooling and nonrecurring expenses, and requested the committee to keep this fact in mind (tr. p. 338). It is obviously unfair to make a comparison when one of the cost figures to be compared is computed by writing off against a portion of the contract all the training hours, subcontract costs, and preproduction expenses, which are clearly items that are chargeable to the entire contract.

#### B. COMPARISON WITH COSTS OF OTHER SECOND-SOURCE PRODUCERS

1. At the present time, there are several other second-source producers of military aircraft under Air Force contracts in addition to Kaiser-Frazer. For example, General Motors is producing Republic F-84 fighters at Kansas City and Lockheed is producing Boeing B-47 bombers at Marietta, Ga.

2. The costs being incurred by General Motors at Kansas City, and by Lockheed at Marietta, are not available to us. The committee has requested the Air Force to submit data comparing the costs of these producers to the costs of the primary producers of the same items, so that the ratio of cost difference between the primary and second source can be compared with the similar ratio on the C-119 (tr. p. 259).

3. While we do not know what these comparisons should show, we understand that—at least, in the General Motors case—it was generally expected that General Motors' costs per plane would run 4 or 5 times higher than Republic's cost per plane, based on the type of plane which Republic was building at the time.

4. Another possible basis of comparison would be to compare Kaiser-Frazer's costs for the C-119 with Fairchild's proposal, submitted in 1951, to build 193 C-119 aircraft at the Government-owned plant in Park Ridge, Chicago, Ill. We do not have the information needed to make this comparison, but it may be available to the committee. We believe that, when the Fairchild estimate is adjusted for the fact that Park Ridge was to receive tooling and priming parts from Willow Run, thus requiring an upward adjustment of Fairchild's costs and a downward adjustment of Kaiser-Frazer's costs (since this tooling is now charged entirely to Kaiser-Frazer's 159 planes), and when Fairchild's estimate is further

<sup>4</sup> This item of loss of value in removing automotive equipment covers, primarily, the asset value of the labor, which was originally necessary to install this equipment.

<sup>5</sup> Included in the Willow Run tooling cost, as noted in the schedule, is \$1,563,000 of completed tools acquired by Kaiser-Frazer to prime Fairchild's Park Ridge operation. This item should of course have been excluded.



adjusted to allow for the cost to the Government of renovating the temporary wartime structures comprising the Park Ridge plant, the Fairchild estimate would be far above the Hagerstown unit costs that have been placed in the record.

5. In selecting the Willow Run facility for the production of airplanes, the Air Force was saved the expenditure of approximately \$30 million to \$40 million for the construction of new facilities. This is based on an estimated cost of approximately \$20 per square foot on approximately 1 million to 2 million square feet of space (the amount used at Willow Run) for the production of military aircraft. It might be argued that this could represent a savings to the Government of as much as \$150,000 to \$200,000 per plane, based on 159 planes. Such an argument would be at least as valid as the argument that Kaiser-Frazer's "second source" cost for 159 planes should be compared with the cost of a producer who has produced 800 planes of the same basic type in a Government-owned plant.

### III. COMPARISONS OF OUR PERFORMANCE WITH THE ORIGINAL AGREED ESTIMATES

#### SUMMARY

1. The proper measure of Kaiser-Frazer's performance is not whether we have built C-119s as rapidly and cheaply as the original designer has produced some 800 C-119s and C-82s. As noted by Senator Symington (tr., p. 224) and by Senator Duff (tr., p. 241), the proper measure is whether our performance compares favorably with the estimates agreed on with the Air Force at the time the definitive contract with Kaiser-Frazer was worked out.

2. During the hearings a number of charges were made that our performance on the C-119 contract has been poorer than the original estimates. These charges have related both to the time in which the job is being done and to the costs being incurred. The evidence summarized below shows that, allowing proper weight to the many difficulties encountered, most of them entirely beyond our control, both the time and cost of our performance have been good when compared to the original estimates agreed on with the Air Force.

3. A basic factor affecting our performance was that we were building C-119s for the first time. We were ordered to build a new model—the C-119-F—that had never been built by anyone before. We were to be supplied with the required technical data and engineering drawings under a technical assistance agreement with Fairchild. We did not receive all of the data and drawings required to build the plane at a new plant; much of what we did receive was months late, and an important part was inaccurate or outdated. As a result, we were forced to develop a good deal of the basic tooling data and drawings ourselves. This seriously affected both the time and cost required to complete our contract.

4. Nevertheless, as of April 30, 1953, the date selected by the committee staff for its comparisons, we had built 71.4 equivalent airplanes, and, based on our present estimates, we expect to complete the entire 159 by December 31.

5. We estimate that our unit cost per plane for the entire 159 planes including tooling and plant rearrangement will be only 10.8 percent higher than the estimate contained in the definitive contract, not 2 to 3 times higher, the impression created in the hearings. An overrun of 10.8 percent on the original estimated price contained in the definitive contract is not excessive and will compare favorably with Air Force experience on other CPFF and fixed-fee contracts with contractors producing a particular aircraft in quantity for the first time.

#### A. THE TECHNICAL ASSISTANCE PROGRAM

1. In accordance with a long-established Air Force practice and procedure, the Air Force requested Fairchild to give technical aid to Kaiser-Frazer and to supply certain "priming" parts in the early stages.

2. This arrangement was normal Air Force practice whenever additional producers are added to a program.

3. A formal technical-assistance agreement between Fairchild and Kaiser-Frazer was executed and delivered to the Air Force in February of 1951. The intent of the technical-assistance agreement was to furnish necessary data to Kaiser-Frazer as soon as possible in order that Kaiser-Frazer could get a large quantity of C-119's into production quickly, in view of the national emergency.

4. Kaiser-Frazer was informed in late December 1950 that the Air Force had in its files an industry mobilization-planning study in connection with the C-119

airplane, called the "Omaha package," which had been prepared for the Air Force by Fairchild. The "Omaha package," we were advised by the Air Force, had been prepared some time before, in anticipation that in the event of mobilization the C-119's might be built at Omaha.<sup>6</sup>

5. For the above reasons we faced a very serious problem that was not received until early summer of 1951. The problems were these:

- (a) The "Omaha package" was not up to date.
- (b) The Fairchild drawings were not up to date.
- (c) We had been required to build model C-119F instead of C-119C.
- (d) The engineering information for the C-119F was not developed and therefore not available except as developed by Fairchild, which took a period of almost 1 year.

6. The F model airplane differed from the C model to the extent of some 81 changes which affect approximately 30 percent of the airplane.

7. Due to the fact that a strike was in effect at the Fairchild Hagerstown plant shortly after the award of this contract to Kaiser-Frazer, Fairchild was unable to furnish any drawings or technical data as provided in the technical-assistance agreement. It was therefore necessary to use the "Omaha package." It was understood that the "Omaha package" did not reflect many of the changes that had been made in the C-119C model. But it was agreed that Kaiser-Frazer should use this information until such time as Fairchild was in a position to furnish up-to-date information. All parties recognized that it would be necessary to coordinate the up-to-date information with the information obtained from the "Omaha package."

8. It took Fairchild almost a year to develop the F engineering information and accordingly, the F tooling information. There were also deficiencies in the technical information that was furnished on the C airplane.

9. A review indicates that the usable portions of the Fairchild-furnished tool design, under the technical-assistance agreement, represented approximately one-third of that which was required. The remaining two-thirds had to be developed and designed by Kaiser-Frazer. This situation occasioned various meetings at Willow Run and Hagerstown, at which time the local Air Force representatives were in attendance, and Fairchild and the Air Force were informed that this situation was seriously affecting Kaiser-Frazer's delivery schedule.

10. Specific examples of the tool design difficulties which we encountered under the Fairchild technical-assistance agreement are contained in the following-memorandum from Mr. W. M. Moelk, who was chief tool designer at Fairchild during the program, and subsequently transferred to Kaiser-Frazer with the full approval of Fairchild:

JUNE 17, 1953.

To: Mr. T. F. Riddle.  
From: Mr. W. M. Moelk.  
Subject: C-119 tool designs.

During the time that Willys Motors, Inc.,<sup>7</sup> entered into negotiations with Fairchild to receive full information pertaining to tool design, I was employed as chief tool designer at Fairchild. The designs, especially the major assembly fixtures, were very incomplete, approximately 40 percent of the subassembly tooling having been built on the floor without any design. In some cases where tools had been built at Fairchild and found to be unsatisfactory, the tools had been completely redesigned and reworked on the floor, and the final information was not incorporated in the drawings. This caused a condition of having two designs on a tool supposedly built for one specific assembly, which, in turn, were shipped to Willow Run without screening by the Fairchild aircraft division. Fairchild, in an attempt to correct this situation, made tooling sketches without dimensions. These were also forwarded to Willys Motors to build tooling, which further created unnecessary tool-build problems.

#### DETAIL TOOL

On Erco jigs, Kirksite blank dies, steel blank dies, there were practically no designs at Fairchild and none available to Willys Motors, Inc. On draw dies where the tooling had been subcontracted to design and build shops by Fairchild, there were many cases where drawings were not available to Willys Motors.

<sup>6</sup> As already noted, the use of the Government's Omaha plant was dropped because the buildings were being used by the Strategic Air Command.

<sup>7</sup> The new name of the Kaiser-Frazer subsidiary performing the C-119 contract.

#### TEMPLATES

Templates were built by two vendors, one being Mr. McIntyre and the other being a Mr. Mike Fuller. Neither of these vendors had qualified template personnel to do this work, although the finished product was checked by Fairchild template inspection. These templates were not adequate without a large amount of rework to build required tooling.

#### LOFTING

There was a definite lack of coordination between lofts and detail templates throughout the program. A specific example was in the loft lines of the outer wing panel which had a discrepancy of  $\frac{1}{4}$  inch in the rear spar. This created an extremely large amount of tooling rework and necessitated additional assembly build time and high scrapage of preformed details.

#### ASSEMBLY FIXTURES

Some of the major assembly fixtures on which the designs were furnished to Willys Motors, Inc., had never been built. They had been designed strictly from a mobilization standpoint as a fixture that would have been built had production warranted. These designs had never been checked. No tooling had been built over these designs, and, as in most cases, there were errors which had to be caught during the build. These fixtures consisted of the outer wing final, outer wing leading edge, and outer wing trailing edge assemblies.

It is my sincere believe that any and all of the above-mentioned discrepancies created additional tooling costs and had a serious effect on overall costs and schedules.

W. A. MOELK.

11. Mr. Moelk's memorandum mentions the template situation in his enumeration of tool-design difficulties which we encountered under the technical-assistance agreement with Fairchild. A template is a pattern or mold used as a guide for making special tools or parts. Under the technical-assistance agreement, Fairchild was obligated to supply us with a complete set of tooling templates scribed on 4-by-8 aluminum sheets. From 60 to 75 percent of the templates which Fairchild furnished were inaccurate or incomplete and had to be reworked or replaced. Some of the reasons for the defects in these templates are described in a memorandum prepared by Mr. Robert Debenport, who was assistant superintendent of Fairchild's tool-manufacturing division during the period when K-F was being furnished with templates under the technical-assistant agreement. Mr. Debenport is now general superintendent of K-F's tool-manufacturing department. His change of employment took place with Fairchild's full approval.

JUNE 18, 1953.

To: T. F. Riddle.  
 From: B. Debenport.  
 Subject: C-119 tooling.

Following are some of the conditions which were encountered by Willys Motors, Inc.,<sup>8</sup> after receipt of the assistance package from Fairchild:

#### TEMPLATES

At the time that Willys received the contract for the C-119, I was employed by Fairchild as superintendent of the tool-manufacturing division, having under my supervision the manufacturing of all templates and tooling. It was decided at Fairchild that I would not duplicate any tooling templates in the Fairchild facility due to the anticipated overload that would occur upon the receipt of engineering information on the C-160 which was then in the process of engineering.

The C-119 tooling templates were drawn from the storage crib and shipped to two vendors for duplication. One of the vendors was a tooling shop owned and operated by one Mike Fuller. The other was Mr. R. L. McIntyre. Mr. McIntyre had no shop at that time but set up a temporary operation in a vacant building. His equipment consisted of sawhorses and boarding laid over same to create his worktables. Practically no experienced help was used by either shop in making the new templates. These templates were scribed from the tooling templates furnished by Fairchild and were not checked to the loft lines. They were, however, inspected by Fairchild template inspection.

<sup>8</sup> The name of Kaiser Manufacturing Corp., the K-F subsidiary which holds the C-119 contract, was recently changed to Willys Motors, Inc.

The writer visited the above-mentioned shops and pointed out to the Fairchild chief tooling inspector that these templates were not complete or correct, and that Willys Motors, Inc., would encounter serious trouble when they tried to build detail tools from the above-mentioned templates. The writer's reason for feeling this way was that most of the Fairchild templates were cut from the original lofts and all the information that was required was not scribed on the Willys templates, such as inside and outside mold lines were not identified—in many cases only one of the lines appeared. Hole sizes were not identified, and many of the tool holes not identified as same. However, in spite of my warning, the program was continued, and Willys received inspected, stamped templates that were supposedly up-to-date and correct, but were actually incomplete and incorrect.

In July of 1951, I left the Fairchild aircraft division to accept a position with Willys Motors, and I am presently general superintendent of the tool-manufacturing department, and in the 23 months I have been here at Willow Run my original concern has been verified. For example, of the entire template package, approximately 75 percent were proven incorrect or incomplete; and, of that 75 percent, approximately 50 percent had to be remade. These discrepancies were discovered after the detail tools had been built and received and often parts made, which necessitated recoordination, and tool and template rebuild. This condition was caused by the making of tools from templates received from Fairchild that were not correct.

It is the writer's opinion that the above-mentioned template discrepancies have cost Willys Motors months of production time, and have had a serious, detrimental effect on cost.

BOB DEBENPORT.

12. The other major part of the technical-assistance agreement was the priming-parts program. Under this agreement Fairchild was to furnish Kaiser-Frazer 2 shipsets of major assemblies, 3 shipsets of subassemblies, and 9 shipsets of detail parts. This program was also generally completed in accordance with the schedule in the agreement. However, at the time Kaiser-Frazer started receiving the priming-parts assistance from Fairchild, the F model airplane had not yet been engineered or tooled. So, the parts that were shipped to Kaiser-Frazer were for the C airplane, which was the one that Fairchild was presently building, and not the F model that Kaiser-Frazer was scheduled to build.

13. The above conditions had serious effects on Kaiser-Frazer's tooling program. It prevented us from completing our tooling program in time to produce parts. As a result, an additional 16 shipsets of detail parts had to be requested from Fairchild. These parts were for Willow Run only and with the exception of some items did not include parts for Kaiser-Frazer's subcontractors.<sup>9</sup>

14. There is evidence that Fairchild's failure to perform the obligations to Kaiser-Frazer under the technical assistance agreement stemmed from its lack of sympathy with the program for a secondary C-119 source, and its expectation that if the Kaiser organization did not succeed in building the C-119, the work would be transferred to Fairchild.

15. A former Fairchild employee assigned as one of its coordinators under the Kaiser-Frazer contract and now employed directly by Kaiser-Frazer with Fairchild's full approval, Mr. William F. Sherbrook, has stated in an affidavit that his superior at Fairchild told him: "We are not interested whether or not Kaiser ever builds a C-119 aircraft." The affidavit of Mr. Sherbrook is as follows:

DISTRICT OF COLUMBIA ss:

William Francis Sherbrook, being duly sworn, deposes and says:

(1) From September 1948 through March 1952 I was employed by Fairchild Aircraft Division of the Fairchild Engine & Aircraft Corp., first as a spare parts technician and subsequently as a spare parts representative at Dayton, Ohio. Shortly after the second source contract for the C-119 was awarded to Kaiser-Frazer Corp., I was assigned by Fairchild to serve as the spare parts coordinator for Fairchild under this contract. I continued on this assignment until March 1952 when, in accordance with procedures established between Fairchild and Kaiser-Frazer, Kaiser-Frazer obtained the written approval of Fairchild to employ me directly. I am now the superintendent of the service spares department at Kaiser-Frazer.

<sup>9</sup> It should be noted that the 16 shipsets of additional parts did not cover the complete Willow Run-made portion of the airplane—those parts that Willow Run was tooled for and capable of producing were deleted from the list. It should also be noted that in the 30 shipsets of priming assistance, 25 shipsets were in detail parts that required assembly and final operations to put in the form of a completed aircraft.

(2) When I was first assigned by Fairchild as spare parts coordinator on the Kaiser contract, I was specifically instructed by my supervisor, Mr. George W. Dress, to maintain complete control over the spare parts program at Kaiser, in anticipation of the day when Fairchild would be asked to take over and complete performance of the Kaiser contract.

(3) Before being employed by Fairchild, I had been employed by the Glenn L. Martin Aircraft Co. during World War II, and, as part of my duties, was directly connected with Martin's second source operation at Omaha, Nebr., during World War II. Under this program, Martin produced at Omaha both the B-26 designed by itself and the B-29 designed by Boeing. I was the senior spare parts engineer of the company, and I was closely connected with the detailed engineering plans made for the second source operation at Omaha. This was an extremely successful operation, because Martin, of course, furnished all necessary detailed data concerning its own plane, the B-26, and also received complete cooperation from Boeing, which supplied adequate detailed engineering data on Boeing's B-29 plane.

(4) On the basis of this experience, I recommended to my superiors at Fairchild, at the very outset of the Kaiser C-119 program, that Fairchild propose to the Air Force that the configuration be frozen for the first 15 airplanes to be manufactured by Kaiser, and that all current engineering changes be incorporated for the first time in the 16th plane built by Kaiser. At the time, Fairchild was in process of changing over from the type C C-119 to the type F C-119, incorporating more than 70 engineering design changes from the type C. I did not believe it would be feasible for Kaiser to include all these changes in its first few planes, and this was why I recommended that the existing configuration be frozen for the first 15 planes built by Kaiser, so that Kaiser could get started with the existing production model that was coming off the Fairchild line at that time. This proposal was not accepted, and my superior at Fairchild, Mr. Kent Bradford, said to me, "We are not interested whether or not Kaiser ever builds a C-119 aircraft."

(5) As a result, when Kaiser received the complete set of priming parts from Fairchild for the first C-119 to be assembled by Kaiser, Kaiser learned that these parts did not incorporate most of the seventy-odd engineering design changes which had to be incorporated into this aircraft. At that time some of these changes were not and could not be installed in the planes being assembled by Fairchild itself because the required tooling had not yet been completed. Kaiser therefore had to rework many of the priming parts, and this is the principal reason why it was impossible for Kaiser to deliver its first plane on the original schedule.

(6) After closely observing Fairchild performance of the technical assistance agreement with Kaiser-Frazer, first as an employee of Fairchild and later as an employee of Kaiser, it is my considered opinion that Fairchild did not perform its duties to the best of its ability, and that its performance was materially affected by its lack of sympathy with the program, its hope, that Kaiser would not be successful in building the C-119's, with the expectation that in this event Fairchild would be called on to complete the contract. The Fairchild Dayton representative, Mr. Robert Kellhoffer, has stated in my presence that he takes personal credit for having the original Kaiser contract for 200 aircraft cut to 159 aircraft. In my opinion, the quality of Fairchild's performance substantially increased both the cost and the time required for Kaiser to construct its aircraft.

WILLIAM FRANCIS SHERBROOK.

Subscribed and sworn to before me this 20th day of June 1953.

IRENE KOLLAR,  
 Notary Public.

My commission expires June 14, 1955.

#### B. TIME OF PERFORMANCE

The speed of our performance can best be judged in the light of the specific problems we faced and had to solve in converting part of an automotive plant so as to produce aircraft and automobiles at the same time.

(1) *Conversion.*—When the C-119 contract was awarded in December 1950, Kaiser-Frazer was devoting the entire Willow Run plant to the manufacture of automobiles. All floor space was being utilized and the entire organization had been built for the basic purpose of producing and selling automobiles. In 5 months after award of the contract the automobile-producing facilities had been rearranged and consolidated to allow the aircraft division to use over 1 million square feet of the Willow Run plant for aircraft production. In 5 months' time

we relocated paint ovens, conveyor lines, and cleaned out about one-third of our plant in preparation for the aircraft program.

(2) *Training and first production.*—By May of 1951, only 5 months after the award of contract, Kaiser-Frazer had rearranged the plant to accommodate aircraft, had screened the USAF reserve pool of machine tools, and was installing the first machine tools for production at Willow Run. By June of 1951 training programs, quality control procedures, and production control procedures were established and put into operation. Only 6 months after award of the contract the first direct man-hours were expended at Willow Run on those machine tools installed in the new aircraft area.

(3) *Problems of dual operation.*—At Willow Run we were pioneering a second-source aircraft operation in a dual-purpose plant. This type of operation was new to us and to the Air Force. There were new manpower, supervisory, management, and financial considerations that are unique in this type of operation. The answers to each problem had to be developed with the urgency of the situation in mind and without benefit of past experience or procedure. We developed the necessary procedures, organization, and accounting policy to properly allocate charges between aircraft and automotive production, all of which was approved by the Air Force.

(4) *Subcontracting.*—Under the second-source policy we were requested by the Air Force to subcontract 35- to 50-percent airframe weight to facilities not engaged in Air Force business at that time. We are proud of the subcontractor program that we have established. Our major subcontractors are supplying components on or ahead of schedule. In one case a subcontractor is presently supplying completed components to Fairchild to support its accelerated program.

(5) *Installing excess capacity.*—The Defense Department's second-sourced policy contemplated use of existing commercial facilities and organizations that would form the basis for rapid expansion in time of national emergency. Kaiser-Frazer is now producing the same number of airplanes per month that Fairchild was back at the beginning of this program in December 1950, yet today Kaiser-Frazer has developed and has available the basis of an organization necessary to expand to 500-plane per month production at Willow Run, if necessary, compared to a maximum production of 35 airplanes per month at Hagerstown.

(6) *Change from the C to the F model.*—The original award to Kaiser-Frazer was to build the C model of the C-119. In January and February of 1951, the specifications were changed to the later F model, which is approximately 30 percent different than the C, and requires some 80 changes from the C, including a different engine and a hydraulic rather than an electrically actuated landing gear and control surfaces.

Fairchild was responsible for furnishing Kaiser-Frazer the engineering information on the change from the C to the F. However, the complete engineering information was not received until a year after the time of the change in specifications. Changes were received all during the time we were tooling and building the planes. Furthermore, a number of the priming parts furnished by Fairchild were C-119C parts which had to be modified by Kaiser-Frazer to F parts.

In spite of all this, Kaiser-Frazer delivered to the Air Force the first C-119F only 1 month after the last engineering information was received and simultaneously with the completion of Fairchild's first production tryout F model.

(7) *Reduction of man-hours.*—The number of direct labor hours per airframe pound at Willow Run compares favorably with the weighted industry average curve on transport type aircraft which was furnished in the Air Force source books.

(8) *Fitting in the C-123 program.*—Seven months after we started on the C-119 program we obtained a production subcontract for the C-123 aircraft to be produced at Willow Run concurrently with the C-119. This added the heavy load of tooling, purchasing, and planning of another program, with the resultant number of indirects. In spite of this, Kaiser-Frazer has improved its direct-to-indirect ratio steadily since November 1 of last year. Furthermore, our C-119 experience should result in substantial savings of time and money in volume production of the C-123.

(9) *Accomplishments to date.*—Through April 30, 1953, the date selected by the committee for its comparisons, Kaiser-Frazer had installed all the necessary tooling capable of producing C-119's at a rate much higher than the present rate of production, had assembled and trained its labor force, had assembled a new family of subcontractors who had also completed their tooling and trained their labor forces, and had produced the equivalent of 71.4 aircraft out of the 159 to be built under the contract.

(10) *The parallel with Willow Run in World War II.*—The problems we have faced in producing C-119's at Willow Run are not unique. In fact, very similar problems occurred at Willow Run during World War II. As everyone will recall, construction of the Willow Run plant was started by the Government shortly before the outbreak of World War II, for the second source production of B-24 bombers by Ford Motor Co. Ford did an outstanding job producing thousands of B-24's at a peak rate of over 400 planes per month, at costs below those of the primary source, Consolidated Vultec. Ford's operation is generally hailed today as a brilliant success.

Yet in the early stages of the B-24 program at Willow Run, difficulties arose very similar to those we are faced with today. Almost identical criticisms were heard. Ford was accused of having extremely high costs and of producing at a very slow rate.

It is interesting to note the parallel between the present situation at Willow Run and the World War II situation faced by Ford, as set forth in an official Air Force report published in August 1946, entitled "B-24 Construction and Production," prepared by the Industrial Plans Section, Logistics Planning Division of the Air Materiel Command:

"2. At least until the outbreak of war gave unmistakable urgency to the program, Consolidated was resentful of Ford's entry into B-24 production and did not go out of its way to be helpful. On the other hand, Consolidated did have a lot of production problems of its own, was under strong Government pressure to increase its output and could at best devote only limited time to Ford" (p. 26).

\* \* \* \* \*

"5. The data with which Consolidated had been building a limited number of B-24's was not sufficient for Ford's purposes. Consolidated had built the first Liberator in the amazingly short time of 9 months. It accomplished this feat by resorting to shortcuts and shop engineering and allowing production engineering to lag. Thus the engineering data turned over to Ford often were incomplete and out-of-date. Furthermore, Consolidated used fractional drawings while the entire Ford organization was accustomed to using decimal drawings. Consolidated, with experienced shop men and limited production, did not always make drawing in the detail required by Ford. As a result Ford was obliged to do considerable redrawing and had to completely retool the airplane before getting straightened away on its preproduction task" (p. 26).

\* \* \* \* \*

"At the close of 1942, about 22 months after project approval, Willow Run's best production was 11 airplanes a month" \* \* \* (p. 30).

It should be noted that Ford ran into difficulties under conditions of all-out war, under orders to produce the maximum possible number of planes. We are producing C-119's in time of peace, under a stretched-out preparedness program deliberately keyed to large plant capacities and low production rates.

#### C. COST OF PERFORMANCE

1. During the hearings to date, several efforts have been made to compare Fairchild's present day unit costs for C-119 planes, based on Fairchild's experience of building 800 C-119 and C-82 planes to date, with Kaiser-Frazer's cost for producing its first 159 C-119 aircraft and for preparing the capacity at Willow Run to produce a much larger number.

2. The testimony made clear that substantially higher initial costs would be incurred by a second source manufacturer building its first quantity of planes, because of the need to charge off against these planes the cost of tooling and training both at the main assembly plant and at the plants of subcontractors (transcript, p. 232). A better measure of comparing Kaiser-Frazer's costs would be to compare these costs with the agreed original estimates for doing the work that is actually being done at Willow Run under the conditions encountered. Several members of the committee asked the Air Force to furnish this information (transcript, pp. 224, 241).

3. The first Kaiser-Frazer estimated unit cost on the C-119 plane at the Willow Run plant, on the basis of the original contract to produce 200 C-119 planes, and tool up capacity for a much larger number, was approximately \$169 million. On a per-plane basis, this worked out to \$688,400 total manufacturing cost, and \$156,600 per plane for plant rearrangement, tools, equipment, and tooling at Willow Run and at plants of subcontractors, and fee, making a total unit estimated cost for 200 planes of \$845,000 per plane. It must also be borne in mind that

these estimates were based on receiving full engineering and tooling data from Fairchild.

4. Due to stretch-out, the contract was later substantially changed and a virtually new contract was worked out to produce 159 C-119 planes on a different and stretched-out schedule, and also to tool up capacity at Willow Run to turn out a much larger number.

5. At that time (July 1952) a new estimate was made, based on the changed conditions and experience acquired to that time. This was essentially a new contract and formed the ultimate basis for C-119 production at Willow Run.

6. The total agreed estimated cost (exclusive of spares) was \$179,098,246. On a unit basis, the price per plane worked out to approximately \$1,126,000.

7. This definitive contract estimate of \$179,098,246 is the only estimate with which actual costs can properly be compared. The earlier estimate had been for 200 planes to be built with prompt and accurate tooling information supplied by Fairchild, not 159 planes to be built with late and inaccurate tooling information received from Fairchild, as proved to be the case. Moreover, at the time of this earlier 200 plane estimate, there was no reasonable basis for predicting the cost of many new elements of the "F" type plane, which even Fairchild had not yet put in production. As a result, even though we were required to build the new F type plane, we had to prepare the original 200 plane estimate on the basis of what we knew about the C type plane.

8. Even the definitive contract estimate for 159 planes was made at a time when all of the problems that were to be encountered had not yet become apparent. Some of these problems are described in paragraph 14 below.

9. On May 8, 1953, in accordance with contract requirements, Kaiser-Frazer reestimated the total cost of completing this contract based on incurred cost and experience gained to that time. The total manufacturing cost was set at \$1,043,200 per plane, plant rearrangement, tooling, etc., at \$205,300 per plane or a total of estimated cost of \$1,248,500 per plane. The total reestimated amount to complete the contract, including both the production of 159 planes and the preparation of capacity at Willow Run to produce a much larger number is \$198,525,182—an increase of only 10.8 percent.

10. This represents an overrun of only 10.8 percent. An overrun of this small size is clearly reasonable in the light of the unusual difficulties encountered for a second source operation in a dual purpose plant, particularly when it is considered that the Air Force usually and quite properly negotiates the lowest possible original estimated cost for inclusion in the definitive contract, in order to hold down the size of the fixed fee.

11. Committee members expressed alarm and concern because it had been represented to them that Kaiser-Frazer's costs had increased many times over the original estimates. The \$467,000 figure mentioned during the hearings as the "original estimate" was not an estimate, and it was not submitted by Kaiser-Frazer. Our understanding is that this was simply a budget figure used by the Air Force for purposes of allotting and obligating its own funds, and that the figure was based on estimates of Fairchild costs at the time, even though the Air Force assumed that our costs would be higher (tr., p. 172). As shown above we do not expect under present circumstances to exceed the agreed contract estimate for 159 planes by more than approximately 10.8 percent, instead of the much greater margin referred to during the hearings. We believe this is well within the range of normal overruns on cost-type or fixed-price redetermination type contracts with manufacturers producing a particular military plane in quantity for the first time.

12. It will be noted that on May 8, 1953, we estimated the cost of completing the contract at \$198,525,182, whereas, the Air Force resident auditor, Mr. Solomon, has recently estimated the cost of completion as \$213,923,341. Mr. Solomon's estimate is approximately \$15 million too high. Our principal reasons for disagreeing with Mr. Solomon are as follows:

(a) Mr. Solomon estimates total burden as \$8,236,035 higher than our own estimate. To reach this figure we would have to increase our average monthly burden expenditure by \$1 million per month, when, as a matter of fact, we are on the downward trend, due to the phasing in of C-123 production.

(b) Mr. Solomon estimates direct labor charges at \$5 million over our estimate. Our direct labor performance has been improving constantly and we believe the contract will be completed well within our own estimate of May 8, 1953, already introduced into evidence.

13. The following shows a comparison of the estimate contained in the definitive Willow Run contract for 159 C-119-F airplanes, our revised estimate of May 8,



1953, and Mr. S. C. Solomon's recent estimate presented to the committee. The unit costs referred to above were compiled from the totals in columns 1 and 2.

*Projection of cost C-119 contract <sup>1</sup>*

	K-F Air Force agreed estimate July 1952 (159 planes)	Kaiser-Frazer May 8, 1953, estimate to complete total contract (159 planes)	Mr. Solomon's estimate June 1953
	(1)	(2)	(3)
Production materials.....	\$14,285,000	\$14,368,938	\$14,368,938
Direct labor.....	20,273,000	23,330,884	28,474,992
Factory burden.....	62,230,000	79,284,433	87,520,468
Engineering.....	5,260,000	4,695,942	4,695,942
Administrative.....	6,544,000	8,007,697	9,012,046
Subcontracts.....	34,079,000	36,187,711	36,187,711
Production estimated costs, airplanes.....	142,671,000	165,875,605	180,260,097
Special tooling.....	20,064,000	19,353,892	19,353,892
Plant rearrangement.....	4,842,000	2,400,333	2,400,333
Portable tools.....	1,751,000	1,793,931	1,793,931
Subtotal.....	26,657,000	23,548,156	23,548,156
Engineering change and fee.....	1,103,163	( <sup>2</sup> )	-----
Clause 4, no fee items.....	1,604,329	2,038,567	3,038,567
Subtotal.....	2,707,392	2,038,567	3,038,567
Total contract.....	172,035,392	191,462,328	206,846,820
Fee.....	7,062,864	7,062,864	7,076,521
Grand total contract (planes).....	179,098,246	198,525,182	213,923,341

<sup>1</sup> In each of the above columns the total cost does not include the cost of spare parts. However, the fee shown in each column includes an amount (approximately \$490,000) allocated to the furnishing of spare parts.

<sup>2</sup> Including above.

14. Much has been made of the 10.8 percent overrun in the estimate of May 8, or the higher overrun according to Mr. Solomon's estimate, as compared to the definitive contract estimate. An overrun of this size is not abnormal for a manufacturer producing a particular military plane in quantity for the first time. In our case, there are a number of entirely proper and unavoidable reasons, such as—

(a) As stated above, an important part of the templates and tooling drawings received from Fairchild were inaccurate or out-of-date. In many cases, these facts were not discovered until after tools were made from the defective templates and drawings and until after the tools had been used to make parts which would not fit together on the assembly line. This led to substantial delays and additional direct and overhead costs, in amounts to an extent virtually impossible to estimate.

(b) We were required to produce a C-119-F airplane instead of the C-119-C airplane at a time when all the required engineering information had not yet been completed by Fairchild and delivered to us.

(c) The primary parts received from Fairchild under the technical assistance agreement required much rework and many of the parts were not usable on the C-119-F airplane, which required us to produce parts for the airplane that were not contemplated in the original estimate.

(d) The direct labor estimate of May 8, 1953, was based on recorded costs through March 31, 1953, and the estimate of labor necessary to complete the contract. The recorded costs through March 31, 1953, included all direct labor required to incorporate engineering changes required by the Air Force and effective through that date; therefore that part of the \$1,103,000 allowed for engineering changes which had been performed through March 31, 1953, is included in the May 8, 1953, estimate of direct labor. It will be noted that the definitive contract against which the May 8 estimate is compared shows \$1,103,000 as a separate item below plane cost.

(e) Whirlpool Corp., our subcontractor for outer wing panels and flaps, furnished us 13 sets of wings which had been treated with a cleaner which caused corrosion of the metal. Four planes had been assembled with these defective wings and additional wings had been delivered to us, ready for assembly. When

this condition was discovered, it was necessary to ship back some of the defective wings for rework by Whirlpool and to rework some of the wings at Willow Run, necessitating removal of metal skins and replacing with new parts. All of this additional rework mentioned above caused increased direct labor costs which contributed to increase in the estimate.

(f) Serious difficulty was encountered with cannon plug connections, necessitating their complete removal from assembled planes as well as planes in process. A great amount of wiring had to be removed, the cannon plugs reworked, and the wiring reinstalled in order to conform to Air Force specifications. Part of this was caused by insufficient engineering information from Fairchild.

(g) Due to the delays in receiving engineering data from Fairchild, much of which was necessary to our requirements for production of a C-119-F airplane, many of the tools for the component parts were not available in time for us to meet established schedules. This necessitated considerable handforming of parts for which no tools were available and considerable rerunning of parts on tools which had been incompletely or incorrectly designed due to this delay in receiving the required engineering information from Fairchild. This caused increased direct labor cost over our original estimate.

(h) The increase in the burden estimate is caused for the same reason as quoted above in the explanation of the overrun on direct labor. Obviously, when direct labor is increased for the reasons shown above, a comparable increase is made in overhead.

#### IV. PROPRIETY OF CLAIMS FOR REIMBURSEMENT

##### SUMMARY

1. Kaiser-Frazer did not knowingly submit any improper costs billed to the Air Force. The Willow Run operation was the first for which the Air Force and the contractor succeeded in working out a mutually satisfactory method of allocating general items of plant expense between aircraft and automotive work. Differences of accounting opinion, of course, arose in the early days of the contract while this method of allocation was being worked out. These differences were resolved by agreement. For the time the allocation method was approved by the Air Force, cost disallowances have been negligible in amount and routine in nature, totalling less than 1 percent of the amount billed to date. The resident auditor has himself testified that no costs not properly allocable to aircraft work have been reimbursed by the Air Force.

2. Many of the specific items emphasized during the hearings were never even submitted by us to the Air Force for payment. For example, we never asked the Air Force to pay for any of our interest expense. We never asked the Air Force to pay for any part of the \$60,000 mentioned as the cost of the dedication ceremony for the first C-119; in fact, we ourselves proposed that this item not be charged to the Air Force. We never asked the Air Force to pay for vacations earned on automotive work; in fact, we ourselves proposed the vacation formula that was adopted.

3. In 30 years of performing billions of dollars of contracts with the Government, to our knowledge no improper charges have been submitted to the Government by any Kaiser company. We have of course submitted costs in good faith that were disallowed in equally good faith for one technical reason or another, as is normal on any Government contract. But we have never submitted claims in bad faith and we have never been accused of so doing.

##### A. ALLOCATION OF COSTS BETWEEN AUTOMOTIVE AND AIRCRAFT PRODUCTION

1. It has been alleged that Kaiser-Frazer attempted to charge automotive overhead to aircraft costs. This is placing a wholly unwarranted construction on developments which actually led to a satisfactory solution of a problem confronting both the Kaiser-Frazer management and Air Force officials.

2. It must be remembered that the Willow Run operation is a "second source" operation conducted in a "dual purpose" plant. Many procedures and problems unique to these types of operations arose to confront officials of both Kaiser-Frazer and of the Air Force in the early days of the C-119 contract.

3. Honest differences of opinion naturally arose as to the practices and procedures to be followed in some instances and many discussions were necessary by all parties concerned in order to establish fair and equitable distribution of costs.

4. These honest and reasonable differences of opinion as to procedures and methods in the early days of the contract were aired in some detail at the hearings and left the impression that Kaiser-Frazer had endeavored to make cost charges

that were not warranted. It is to the credit of both the Kaiser-Frazer management and Air Force officials that these problems were resolved and entirely adequate procedures have been established:

5. When the C-119 contract was awarded in December 1950, we knew that we were faced with the unique problem of carrying on a dual operation under one roof. This in turn meant, as we recognized from the beginning, that we would have to develop an accounting system which would insure equitable allocation of general overhead or burden expenses to the appropriate operation, either automotive or aircraft.

6. Before describing in detail the system which we eventually developed, it is important to get the time sequence on the record. We started working on an allocation system as soon as the contract was awarded. We developed an accounting system and presented it to the Air Force on April 1, 1951, less than 4 months after the award of the contract. The problem which faced us was novel; there were, so far as we were aware, no precedents; yet we developed in less than 4 months a system which was ultimately approved with only slight modifications. However, because of the lack of precedents, it took the Air Force almost 7 months to approve the system which we developed. During this 7-month period, we were considerably handicapped in our accounting procedures because of uncertainty about the Air Force's views on certain details of the system.

7. Our company was the first, so far as we know, to be confronted with this dual operation problem in connection with an Air Force contract. Nevertheless, the allocation system now in effect was finally approved by the Air Force on October 26, 1951, less than a year after the award of the contract.

8. The system which we worked out and which the Air Force accepted operates as follows:

(a) Certain departments are classified as either direct automotive or direct aircraft departments. Overhead costs attributable to these departments are completely segregated.

(b) Costs relating to physical occupancy of the plant are grouped together. These include building depreciation, property taxes, insurance, building maintenance, power plant operation, outside services, etc. These costs are allocated to the defense operation and the automotive operation on the basis of the square feet of plant floor area occupied by each respective operation.

(c) This leaves general departments which service both operations and which cannot be allocated on the basis of plant occupancy, but which must be allocated on the basis of costs of services. These include tool engineering, planning, plant protection, personnel, purchasing and accounting. The basic accounting concept which we use to allocate these costs is "direct-charge man-hours." "Direct-charge man-hours" are defined to include direct labor and indirect labor and salaries charged directly to either division, plus some direct-charge man-hours from the general departments for personnel directly assigned to either the aircraft or the automotive operations. The sum of direct-charge man-hours in the aircraft operation is then related to the total direct-charge man-hours for both operations for each month.

The resulting percentage gives the basis for allocating general expenses to the aircraft operation for the respective month. Conversely, a percentage of direct-charge man-hours for automotive operations is used to compute the automotive share of general expenses.

9. Actually, only a small proportion of total overhead at Willow Run requires use of an allocation formula. From January 1, 1951, to April 30, 1953, total overhead for both automotive and aircraft operations at Willow Run amounted to \$152,889,000. Of this amount, \$45,395,000 or 29.8 percent was incurred directly in connection with commercial business, and \$56,847,000 or 37.2 percent was incurred directly in connection with defense business. Therefore, \$102,242,000 or 66.9 percent of the overhead incurred during the period has been charged directly to the appropriate operation. The remaining \$50,647,000 or only 33.1 percent of total overhead has required use of an allocation formula.

10. The accounting system described above has been in constant use since its approval on October 26, 1951, with only minor modifications. We are glad to agree with the specific testimony of the Air Force resident auditor that its use has resulted in a situation where no costs not allocable to defense contracts have been reimbursed by the Air Force (transcript, p. 319).

B. SPECIFIC ITEMS MENTIONED AT THE HEARINGS

1. *First quarter 1951 costs.*—(a) In Mr. S. C. Solomon's testimony he pointed out that during the first quarter of 1951, before an audit residency had been established at Willow Run for the C-119 contract, costs had been charged by the contractor to the C-119 contract in an amount of \$406,000 in excess of that which he considered to be reasonable after conducting an audit of the costs incurred during that period. He therefore testified that, though we had charged \$1,154,778 to the contract during that period, his audit resulted in "disallowances" of \$406,007.62. The "disallowances" were more in the nature of settlements as to temporary allocations since, as we have previously pointed out, the problems of establishing an accounting system to handle the accounting problems of a mixed-plant operation had not been resolved until after the first quarter had ended. In addition, our records do not indicate disallowances in that amount.

(b) Some months after October 26, 1951, the date the Air Force had approved our accounting system, the resident auditor and the contractor agreed on a method of allocating expenses of the first quarter of 1951 to automotive and defense operations. It should be understood that many charges had been made directly to automotive or defense operations on the books of the company during that period and it was only the mixed or allocable portion of expense that had to be treated in this manner. This allocation method employed percentages of later months' experience applied to the allocable costs of the first quarter. It was recognized by both the resident auditor and the company that this was a somewhat arbitrary basis of allocation but that it was impossible to arrive at a more direct method. We therefore believed it would be most unfair for anyone to conclude that the company had loaded aircraft contract costs with automotive costs during that period. We are at a loss to understand how the Air Force resident auditor determined disallowances during the first quarter of 1951, in the amount of \$406,007.62, since our records disclose that the adjustment made after the joint audit performed by the resident auditor and the contractor amounted to only \$31,884.59.

2. *Idle time.*—(a) In the testimony of S. C. Solomon, Air Force resident auditor at Willow Run, testimony was given to the effect that much idle time or improper utilization of manpower existed within the Willow Run facility between December 1, 1951, and September 30, 1952. He included in his testimony a schedule of adjustment which indicated that, during the period of time mentioned above, approximately 1,420,000 hours of idle time were paid for by the contractor, with a value of \$2,784,264. He indicated that this caused excess cost to the C-119 contract. Other testimony indicated that idle time existed within the plant as late as December 1952.

Mr. Solomon's conclusions in his adjustment schedule failed to recognize, as Senator Flanders observed and Mr. Solomon himself agreed (transcript, pp.361-2), that idle time exists in any manufacturing operation, and he has given no credit for normal idle time in his calculations.

We contend that there was no excessive idle time in the Willow Run plant during the period of time under review nor at the present time, and we support that contention with the fact that no formal disallowance has ever been made for excessive idle time from the beginning of the contract through May 31, 1953.

3. *"Manual adjustment" of time cards.*—In Mr. Solomon's testimony reference was made to "manual adjustment of timecards," the inference being that a large number of occurrences of this nature took place. A joint audit between the Air Force and Kaiser-Frazer was made of the payroll and timecards for the week ending February 29, 1952, which is approximately the time period referred to in Mr. Solomon's testimony. This audit showed that 12,271 timecards were examined. Using an average of 10 rings per card per week, which is 2 per day, this would mean a total of 122,700 rings were examined. Of this total, only 532 ring failures were found to be inexplicable. This amounts to only four-tenths of 1 percent of the total examined. There were other ring failures that were explained by mechanical failure of the clock, employee away on company business, approved sick leaves, etc. It is normal in a plant the size of Willow Run that a certain amount of ring failures will occur. These are not unexpected, although every effort is made to avoid them. In the event they do occur, a supervisor's signature must be obtained on the clockcard before the employee is paid. This is done because the supervisor is the person best qualified to certify that the employee was on the job that particular day and at that particular time. We therefore feel that this is a very negligible amount of manual adjustment and certainly not abnormal in any respect from other plants.

4. *Mr. Solomon's tabulation of suspended, disapproved, and nonallowable costs.*—  
(a) Mr. Solomon inserted into the record of this hearing a schedule purporting to be a summary of suspended, disapproved, and nonallowable costs as of February 28, 1953 (transcript, 322-323). Mr. Solomon testified briefly and generally concerning this memorandum. The conclusion drawn from a quick reading of the schedule, which Mr. Solomon may not have intended, is that a total of \$4,289,-426.36 of nonreimbursable cost items were detected by his vigilance and would otherwise have been loaded on to the C-119 contract. Any such conclusion is demonstrably in error.

(b) Most of the items listed on Mr. Solomon's table were the normal borderline items that come up under any Government contract. Questions as to such items are often raised in the first instance by the contractor's own representatives, and sometimes by the resident auditor. In fact, discussions of such questions are a principal function of a resident auditor. As General Cook stated at page 186 of the transcript:

"They [resident auditors] also are utilized to call to the attention occasionally of the contracting personnel what they may consider improper charges to see whether or not something could be done about correcting what they consider improper charges. They are not always correct, I mean in determining whether or not a charge is an improper charge or not."

(c) In order to demonstrate graphically the true state of the record on this issue, we have prepared a tabulation which appears below. This tabulation permits ready comparison of the specific items set forth by Mr. Solomon with what we believe to be the correct version of these items. Wherever a discrepancy between Mr. Solomon's schedule and our listing of specific items occurs, we have inserted a number. These numbers serve as captions for the detailed discussion of the items in dispute which follows the chart.

(d) The general theory which we have followed in preparing this tabulation is that the only way to get a true picture of the extent of the cost-disallowance problem at Willow Run is to include only those items as to which we submitted public vouchers which were subsequently disallowed by the Air Force resident auditor.

Any contractor will have a number of borderline cost items which, as a matter of good working relationships, he will discuss with the Air Force representative. Such items should not be held against the contractor when, after such discussion, the contractor decides not to seek their reimbursement. We believe that the committee should recognize this principle and should consider only those items as to which reimbursement was sought and denied.

*Tabulation showing comparison of Solomon schedule and Kaiser-Frazer records of costs actually disallowed*

	Solomon schedule	Costs actually disallowed
Suspended costs (1):*		
Pending proper documentation.....	\$24,544.92	0
Pending proper approvals.....	45,775.61	0
Disapproved costs:		
Concurred in by Kaiser:		
Labor:		
Vacation payments (2)*.....	715,631.44	0
Other labor-cost adjustments.....	213,885.95	\$213,885.95
Miscellaneous:		
Payroll taxes (2)*.....	100,829.63	100,829.63
Duplicate charges (burden and direct) (3)*.....	612,347.90	110,769.11
Other burden adjustments.....	505,652.99	505,652.99
Direct charges reaccounted.....	87,161.60	87,161.60
E. Kaiser's Senator Bridges letter (4)*.....	4,804.65	0
Not concurred in by Kaiser: Burden adjustment due to shifting of vacation hours in burden bases (5)*.....	350,281.29	0
Nonallowable costs (6)*		
Interest expense.....	1,362,267.76	99,364.69
Dedication of first C-119 airplane.....	61,620.65	
Travelling and entertainment expenses.....	72,533.12	
Miscellaneous expenses.....	132,038.85	
Total suspended, disallowed and nonallowable costs (7)*.....	4,289,426.36	1,117,663.97

\* Numbers refer to paragraphs of text immediately following this tabulation.

(1) *Suspended costs.*—Mr. Solomon's schedule should not include suspended costs, since they have nothing to do with the question of disallowance. As is the case with all Government contracts on a CPTF basis, suspensions of certain cost items during the life of a contract inevitably occur. These suspensions cover items that cannot be paid until audited, items held for supporting documents, etc. Holding an item in suspension does not necessarily, or even probably, mean that it is an improper charge. It can be, and usually is, cleared after audit and reimbursed in due course. Consequently, this item should be stricken from any calculation of disallowed costs at Willow Run.

(2) *Vacation payments.*—The \$715,631.44 in vacation payments should not appear on the chart. The inference is that Mr. Solomon in the course of his audit of our vouchers discovered erroneous accounting treatment and corrected it by disallowance. On the contrary, the transfer of this amount from aircraft to automotive costs is the result of a formula we ourselves proposed to Mr. Solomon.

Kaiser-Frazer Corp. has a labor contract with Local 142 UAW-CIO which calls for payment to its employees of annual vacations, after the anniversary of the employment date of each individual employee. Therefore, vacations are earned by a number of employees each day of the year and are immediately payable. This is a labor contract unusual to the Detroit area since most labor contracts in the area have a fixed anniversary date for the payment of vacations to all employees. From an accounting standpoint, under this standard labor clause, it is possible to accrue monthly the vacation expense incurred. Under our type of contract, with an average employment of approximately 16,000 people, it has always been considered unwise to attempt to accrue monthly the vacation expense; and, therefore, it is our policy to charge vacation expense as vacations are taken by the employees. This company policy has been agreed to by our certified public accountants, Touche, Niven, Bailey, and Smart, as evidenced by their certified balance sheets.

Our labor contract, referred to above, also gives plantwide seniority to our employees, and under a mixed operation such as exists at Willow Run, an employee may choose to work in either the aircraft division or the automotive division if his seniority is such that he can demand work in either.

Therefore, after the C-119 contract was awarded Kaiser-Frazer Corp. and during the buildup of direct labor under the contract, there has been much movement from the automotive division to the aircraft division. The company recognized that it was, therefore, necessary to allocate vacation expense as it was paid and charge the activity, either automotive or aircraft, for the costs of the vacations depending upon which activity enjoyed the services of the employee during the period in which he had earned that vacation and not to the activity in which he was working at the time he was paid his vacation.

We discussed this problem with Mr. Solomon and presented him with a formula which would enable us to adjust recorded costs for the early period of the contract, as well as a suggested procedure to enable us properly to record this expense as it accrued. He accepted our formula for adjusting the early period. We then agreed with him on an adjustment from aircraft to automotive costs in the amount of \$715,631.44. This was not a case where he brought the matter to our attention and caused us to make the adjustment. Consequently, we submit that this item should be stricken from the total computations.<sup>10</sup>

Aside from the fact that this item is not a "disallowed cost," it should be noted that no loss to the Government would have resulted if vacation payments had been allocated to the activity (automotive or aircraft) where the vacations were paid rather than the activity where they were earned. The vacations earned in automotive but paid in aircraft in the early months of the C-119 contract would be canceled out by vacations earned in aircraft during the term of the contract but paid in automotive after completion of the contract.

(3) *Duplicate charges.*—The item "Duplicate charges" (burden and direct) is misleading. Of the \$612,347.90 charged for this item, two items which should not appear accounted for a total of \$501,578.79. Both these items were disallowed at our request, so that we could reclassify and resubmit them as necessary. The regulations covering public vouchers prohibit the use of credits and therefore the only means to withdraw or transfer charges that have been submitted on public vouchers is to request their disallowance and then resubmit them. The first of the two items referred to above, for \$385,388.58, was originally submitted as a direct charge. We later found that it should have been classified as defense overhead pool expense. In order to permit us to classify and resubmit this item properly, we requested Mr. Solomon to disallow this public voucher, and he did

<sup>10</sup> The item "payroll taxes" should be reduced by the amount of tax attributable to the "vacation payments" item.

so. The second item, for \$116,190.21, covered materials which were purchased for the C-119 contract and were later sold to Shakespeare Products, Inc. After they were sold, we asked for a disallowance of the public vouchers so that we could invoice Shakespeare Products, Inc., for the material.

It is perfectly clear that these two items, aggregating almost five-sixths of the total listed by Mr. Solomon as disallowed under this heading, should never have been included on this list. As to the balance, some actually were duplicate charges. Of these, some were discovered by us and brought to Mr. Solomon's attention; others were discovered by him and called to our attention. Still others were not duplicate charges at all. Limitation of space precludes a detailed breakdown, but it does not give an accurate picture to lump all of these items together and to classify them as "Duplicate charges." However, since we do not include a detailed refutation of these items, we have included \$110,769.11, the balance after subtracting the two major items discussed above, in our tabulation of "Duplicate charges."

(4) "*E. Kaiser's Senator Bridges' letter.*"—This was an item totaling \$4,864.65 for a portion of the advertising cost of publishing an open letter to Senator Bridges last November after he had issued a press release in connection with our C-119 contract operations. Kaiser-Frazer employed at that time approximately 20,000 persons and operated 8 plants throughout the country. We published the letter in areas where we operated plants because we were seriously concerned with the effect of the charges that had been made on the morale of our employees. We felt it was important to advise them in an open letter that we denied the charges and that we were asking for a full congressional investigation to make the true facts known. This item of cost was never formally submitted to the Air Force for reimbursement. A routine inquiry (accounting policies letter No. 45) was made as to what part, if any, of this item could be charged as an allowable cost. The ruling was that no part could be charged, and we concurred in it.

This is evidenced by exchange of correspondence, showing that this item was never submitted to the Air Force for reimbursement.

ACCOUNTING POLICIES, LETTER NO. 45

FEBRUARY 19, 1953.

Subject: Expenses, open letter to Senator Bridges.  
To: AF Plant Representative, Central Air Procurement District, Kaiser-Frazer Corp., Willow Run, Mich.  
Attention: CERKC.  
Through: AFAUDMC-ID-KW.  
Through: Defense Contracts Administrator.

Certain expenses were incurred in the preparation and publication of a quarter page open letter to Senator Bridges published in various daily papers in the month of November 1952. This letter was in answer to certain criticism of the performance of Kaiser-Frazer Corp. on Air Force contracts. The subject letter requested that any criticism of either Kaiser-Frazer Corp. or the Air Force in the placing and performance of Air Force contracts should be brought into the open so that these charges and criticisms could be answered.

The expense incurred in connection with this letter amounted to \$4,864.65 was included as allocable expense and was prorated to the cost of Government contracts in accordance with provisions of the Overhead Manual.

Your approval of this expense as a proper charge to the cost of Government contracts is requested.

Yours very truly,

KAISER MANUFACTURING CORP.,  
J. F. COCKS, JR.,  
Assistant Controller.

MARCH 23, 1953.

KAISER MANUFACTURING CORP., Willow Run, Mich.  
(Through: Mr. S. F. Patyrak, Defense Contracts Administrator)  
(Attention: Mr. J. F. Cocks, Jr., Assistant Controller)

GENTLEMEN: This acknowledges receipt of your letter, dated February 19 1953, in connection with the above subject.

Advertising expense, amounting to \$4,864.65, for the open letter to Senator Bridges is considered to be advertising applicable to a controversial matter between the corporation and a member of the United States Senate. Advertising costs for other than "Help wanted" and advertisements in trade and technical

journals is not a reimbursable cost in accordance with A. S. P. R. XV and the Accounting Manual.

This decision resolves item 13 in Mr. S. A. Girard's letter, "Unresolved items" to the undersigned contracting officer dated March 4, 1953.

Very truly yours,

MEYER J. STOUN, *Contracting Officer.*

Consequently, for the resident auditor to include this item in a tabulation title, "Summary of suspended, disapproved and nonallowable costs, including costs of Edgar Kaiser's open letter published in reply to Senator Bridges" in our opinion was entirely unwarranted. Kaiser-Frazer's president had no intention of charging any part of this advertising to the Government. The routine inquiry quoted above was sent without his knowledge.

We regret that the chairman (Senator Styles Bridges) characterized the publication of this letter as an attack on him since it was not so intended. It was a statement of an agreement with the Senator that a hearing in the matter should be held and a request for an early hearing.

(5) *Burden adjustments.*—This item, entitled "Burden adjustments due to shifting of vacation hours in burden bases," in the amount of \$350,281.29, is in dispute between Mr. Solomon and ourselves. We have appealed his disallowance of this item and no decision has yet been forthcoming. It should not be included in Mr. Solomon's schedule unless and until it is definitively disallowed.

(6) *Nonallowable costs.*—Mr. Solomon lists a category of nonallowable costs totaling \$1,628,460.38. Of this amount, we ourselves charged \$1,529,095.69 directly to nonallowable costs, and never directly or indirectly requested reimbursement from the Government of any part of that amount. The balance of \$99,364.69 is all that should properly be included in Mr. Solomon's schedule as costs submitted by us and disallowed by the Air Force.

Two items listed by Mr. Solomon as nonallowable costs deserve particular comment:

(a) *Interest expense.*—Mr. Solomon includes interest expense in the amount of \$1,362,267.76. This represents interest payments on our V-loan and the mortgage on our Willow Run facilities. Interest is generally considered not to be a reimbursable item on Government contracts; we have never considered the above interest expenses to be allowable costs, and we have never requested reimbursement of them. Clearly they have no place whatsoever in a schedule of disallowed costs.

(b) *Dedication of first C-119.*—Mr. Solomon includes an item of \$61,620.65 entitled "Dedication of first C-119 airplane." As in the case of the interest expense, this is an item which we never considered allowable and never requested the Air Force to reimburse. The fact is that by a letter to the Air Force plant representative at Willow Run dated February 29, 1952, a week before the dedication ceremony, we advised the Air Force that the dedication would be held and specifically proposed in advance that certain enumerated items of dedication expense be classified as nonreimbursable costs under the contract. This request was approved in writing by the Air Force contracting officer. The items which we proposed to classify as nonreimbursable included the wages of special drivers and ushers, and the labor and material for assembly and disassembly of the grandstand and certain maintenance activities in connection with the dedication ceremony, as well as elimination of the usual loss on cafeteria meals, because meals served at the dedication ceremony were charged at cost, instead of the usual practice of charging below cost. The effect of this treatment was to make the entire additional cost of the dedication ceremony nonreimbursable. These actual direct charges totaled \$65,930 (not \$61,620.65, as stated in Mr. Solomon's tabulation). These costs were charged directly by us as a nonreimbursable expense and never were submitted to the Air Force for reimbursement. These facts are demonstrated by the following letter, dated February 29, 1952, from our contracts administrator to the Air Force plant representative, which the Air Force representative approved.

Subject: Plane dedication and plant open house C-119 program  
To: AF plant representative, Kaiser Manufacturing Corp., Willow Run, Mich.  
(Attention Capt. F. B. Bretney.)

This is to confirm our understanding that on Saturday, March 8, a plant open house and dedication in connection with the first production airplane under the supply contract AF 33(038)-18481 will take place at the factory at Willow Run, Mich. The factory, as such, will not be in operation on that date except for standby personnel. Allocation and reimbursement of overhead cost for that



day will be in accordance with the overhead manual, entitled "Kaiser-Frazer Corp. and Subsidiaries, Application of Overhead, Effective April 1, 1951," as normally is done for any Saturday work.

In addition to such normal overhead, 100 additional plant protection personnel and 15 maintenance men will be included into the overhead costs, account 99, on that day for allocation and reimbursement. These additional plant protection employees and maintenance employees will be used for the purposes of safeguarding Government property.

Since the plant will be on a standby basis, all costs for that day will be considered as allocable overhead, as hereinabove mentioned, except for the following:

(A) All meals served in the cafeteria and dining room on that date will be served at cost. A per meal price will be established by Mr. Higgins, manager, feeding operations, and a count of the number of people served will be made. The total sales dollars will be deducted from the overhead pool as a nonreimbursable cost under the contract as adjusted for normal operation loss of the cafeteria for the month of March.

(B) A work order will be issued to cover the labor in conjunction with 25 drivers in the courtesy garage and 6 ushers for distributing programs. The drivers will transport military and Governmental dignitaries in conjunction with the dedication of the airplane. Cost accrued against this work order will be a nonreimbursable cost under the contract.

(C) A work order will be issued to cover labor and material for 49 maintenance men who will perform work in conjunction with the assembly and disassembly of the grandstand, including all activities in connection with the dedication ceremony. Cost accrued against this work order will be a nonreimbursable cost under the contract.

If this agreeable to you, will you please indicate your signature in the space provided below.

For Kaiser Manufacturing Corp.

STANLEY F. PATYRAK,  
Contracts Administrator.

Approved:

F. P. BRETNEY,  
Captain, USAF, Contracting Officer.

(7) *Comparison of Totals.* Even assuming the correctness of Mr. Solomon's schedule, the total amount of disallowed charges is only 2.6 percent of total costs incurred and reimbursed to date under the C-119 contract. The revised computation which we have made comes to only .75 percent of total costs under the contract. The Solomon figure, inaccurately high though it is, can hardly be said to show improper cost practices. But the .75 percent figure, which we submit reflects the true state of affairs, represents a cost performance of which any company can be proud. It conclusively refutes any allegation that Kaiser-Frazer has sought reimbursement for nonallowable costs under the C-119 contract.

#### V. OTHER CORRECTIONS OF THE RECORD

##### A. NO COMMITMENTS WERE VIOLATED BY OUR ACQUISITION OF AN INTEREST IN CHASE AIRCRAFT CO., DESIGNER OF THE C-123 CARGO PLANE

###### *Summary*

No commitment was requested from or given by Kaiser-Frazer to the effect that Kaiser-Frazer would not compete with Fairchild or any other manufacturer to develop improved types of military aircraft and seek Air Force orders for such aircraft. It was understood that Fairchild would have a first call up to its capacity on Air Force orders for the C-119 which Fairchild had developed. However, this understanding did not give Fairchild a monopoly on all types of cargo aircraft. It is inconceivable that the Air Force would have sought such a monopoly for Fairchild, which would so plainly have retarded the development of better military aircraft by restricting competition among manufacturers.

1. At the hearing on June 2, former Under Secretary of the Air Force McCone was asked to explain why the production of C-119's at Willow Run was phased out by the Air Force in mid-1951. Mr. McCone stated that in May of 1951 Kaiser-Frazer acquired a 49 percent interest in the stock of Chase Aircraft Co., designer of the C-123 cargo plane.<sup>11</sup> Mr. McCone explained that since the Air Force had a requirement for C-123 aircraft to meet the Army's need for assault transports, it seemed logical to have Kaiser-Frazer manufacture the C-123 at

<sup>11</sup> In fact, the stock was acquired by Henry J. Kaiser Co., which then entered into an agreement for sale of the stock to Kaiser-Frazer under certain stated conditions.

Willow Run under suitable arrangements with Chase, and to phase out the C-119 production at Willow Run accordingly, depending on Fairchild for the entire additional requirement of C-119 (tr., p. 124).

2. Mr. McCone also referred to an understanding he, Secretary Finletter and General Vandenberg had reached with Mr. Boutelle, president of Fairchild, to the effect that Kaiser-Frazer would be only a second source for C-119 aircraft and that, should the Air Force requirements be sufficient to utilize only one manufacturer, Fairchild would receive the preference. Mr. McCone also stated that he had advised Mr. Edgar Kaiser of this understanding with Mr. Boutelle.

3. At page 126 of the transcript, shortly before the end of the hearing on June 2, Mr. McCone said he felt that the acquisition of the Chase stock "was a distinct violation of the commitments made to Secretary Finletter, General Vandenberg and me \* \* \* on the part of Kaiser-Frazer."

4. The next morning Mr. McCone asked for permission to correct this statement. He said "I do not like to have the record appear that the Kaiser Co. violated a commitment which might in effect be a violation of a contract or a moral obligation" (tr., p. 136).

5. The fact is that Kaiser-Frazer violated no commitment of any kind to the Air Force when, in Senator Symington's words, it became "interested in what I understand is a fine airplane, the C-123" (tr., p. 127). It is true that Kaiser-Frazer had been advised of the Air Force's understanding with Fairchild that when and if Air Force requirements for the C-119 were insufficient to justify two sources of supply, Fairchild would receive preference. Kaiser-Frazer of course expressed no objection to this understanding. However, the understanding was solely between the Air Force and Fairchild, and, as communicated to Kaiser-Frazer, it was limited to the C-119. Kaiser-Frazer never understood that by accepting the C-119 second source contract it was to bar itself from attempting to compete with Fairchild or any other aircraft manufacturer by developing or acquiring an interest in any new and better type of plane. Kaiser-Frazer would never have agreed to such a commitment and we do not believe that the Air Force would have requested such a commitment, which would so plainly have retarded the development of better military aircraft by restricting competition among manufacturers.

#### B. KAISER-FRAZER RECEIVES NO GREATER DEGREE OF GOVERNMENT ASSISTANCE THAN OTHER DEFENSE CONTRACTORS

##### *Summary*

The Government is not subsidizing Kaiser-Frazer. More than \$70 million of new private capital has recently been invested in Kaiser-Frazer and its subsidiaries. The Government loans and V-loan guarantees held by Kaiser-Frazer and its subsidiaries are not out of line with the volume of direct Government assistance granted to other aircraft manufacturers, including Fairchild, during World War II and today. No Kaiser company has ever defaulted on any Government loan or V-loan, and no such default is in prospect. Cost-plus-fixed-fee contracts are in no sense subsidy contracts. Moreover, the C-119 letter of intent with Kaiser-Frazer called for a fixed-price contract, and the change to a cost-plus-fixed-fee type was later made on the initiative of the Air Force. Kaiser-Frazer itself would prefer a fixed-price basis and is on record to this effect with the Air Force.

Questions raised at pages 278-282 of the transcript implied that the Government has been subsidizing Kaiser-Frazer, and that the C-119 contract was a continuation of the subsidy policy. The charge was based in part on an allegation that Kaiser-Frazer has received \$89 million in Government loans and in part on the fact that the C-119 contract is a cost-plus-fixed-fee contract. Neither element of the charge has any basis in fact.

1. *Government loans to Kaiser-Frazer.*—(a) The \$89 million figure is presumably taken from a speech delivered by Senator Williams on the floor of the Senate on May 28, 1953, in which he listed \$89 million of Government loans allegedly outstanding to Kaiser-Frazer. Of this total, approximately \$33 million was correctly listed as the outstanding balance on the loans from the RFC, \$12 million was inaccurately described as a loan from GSA (in fact, it is the balance outstanding on the purchase of the Willow Run plant on mortgage terms) and approximately \$44 million was listed as the face amount of 3 V-loans.

(b) The V-loans, of course, are not Government loans. They are loans from private banks to finance defense contracts, a percentage of which has been guaranteed by the Government pursuant to the V-loan program, under which more than \$2 billion worth of loans to over 1,000 companies have been guaranteed to date. Moreover, one of the V-loans listed, in the amount of \$12,980,000 is held by Kaiser Metal Products, Inc., in which Kaiser-Frazer has no interest, while a

second in the amount of \$12 million is held by Chase Aircraft Co., in which Kaiser-Frazer has less than a controlling interest.

(c) It is a matter of record that no Kaiser company has ever defaulted on any Government loan or V-loan. It is also a matter of record that the various Kaiser companies have privately financed more than \$450 million worth of plant expansion since June of 1950. Finally, the Kaiser interests have just completed arranging for the investment of more than \$70 million of private capital in Kaiser-Frazer and its defense subsidiary, Kaiser Manufacturing Corp., for the purpose of acquiring certain physical assets of Willys-Overland Motors, Inc., and making a lump-sum payment of \$15 million to the Reconstruction Finance Corporation. Of this \$70 million, approximately \$37,600,000 was invested by Henry J. Kaiser Co., wholly owned by Henry Kaiser, Edgar Kaiser, and their associates. Thus, the recent investment of additional private funds in Kaiser-Frazer and its subsidiaries, a large part of which is supplied by Henry Kaiser, Edgar Kaiser, and their associates, substantially exceeds the obligations of these companies to the Government.

(d) Further, it is by no means unusual for the Government to finance a substantial part of the capital cost for plant and tools required to expand aircraft manufacture. If this financing is regarded as a subsidy, virtually every aircraft manufacturing corporation in the country was subsidized in this manner during World War II. Thus, Fairchild's facility expansion in World War II amounted to \$42,999,000, of which \$41,625,000 was supplied by the Government.<sup>12</sup> The Government furnished a similar proportion of the cost of the facility expansion for many other aircraft plants during the war. The Government owns the Hagerstown plant in which Fairchild builds C-119's rent free.

2. *The cost-plus-fixed-fee contract for the C-119 aircraft.*—(a). As General Cook explained at pages 260-274 of the transcript, a cost-plus-fixed-fee contract is often the most advantageous for the Government. In the present case, the fact is that Kaiser-Frazer originally desired a fixed-price contract for the C-119, and the letter of intent dated December 20, 1950, recited that a fixed-price contract was contemplated. However, by an amendment dated January 25, 1951, the letter of intent was amended on Air Force initiative to change the type of contract contemplated from fixed-price to cost-plus-fixed-fee because of inadequate manufacturing experience at Willow Run on which to compute a fixed price. On May 18, 1952, the definitive contract was signed on this basis.

(b) Thus, the selection of the cost-plus-fixed-fee type for the C-119 was a decision made by the Air Force in the belief that this type of contract would be in the best interest of the taxpayer. It was in no sense a decision of the Government to subsidize Kaiser-Frazer. Further, Kaiser-Frazer specifically proposed that the C-119 contract be converted back to a fixed price basis as late as August 13, 1952, by a letter to the Air Materiel Command of that date, and simultaneously proposed that the Willow Run work on the C-123 be placed on a fixed-price basis.

#### C. KAISER-FRAZER DOES NOT HAVE AND DID NOT USE POLITICAL INFLUENCE TO OBTAIN THE CONTRACT

##### Summary

As former Under Secretary of the Air Force John McCone has testified, the award of the C-119 contract to Kaiser-Frazer was made entirely on its merits and was not the result of political influence, business friendship, or any other extraneous factor.

1. At the June 2 session of the committee, Senator Duff said that the state of the record at that date "would raise a question in the public mind as to whether it (the C-119 contract) was not political rather than in reality a business transaction based on the facts. I am not making that charge" (transcript, p. 117).

2. Later the same day, Senator Duff asked:  
"Was it ever indicated by the so-called higher authority in Government that they were anxious for Kaiser-Frazer to have an airplane contract?" (transcript, p. 129).

3. Mr. McCone replied:  
"No. No. I would like to be clear on that. There was at no time any indication made to me or to my knowledge to anyone else in the Air Force, concerning a desire to have Kaiser-Frazer have an airplane contract" (transcript, p. 130).

4. This was, of course, the fact. The award of the C-119 contract to Kaiser-Frazer was made entirely on its merits and was not the result of political influence, business friendship, or any other extraneous factor.

<sup>12</sup> Report of the Surplus Property Administration to the Congress entitled "Aircraft Plants and Facilities," dated January 14, 1946, p. 40.

FAIRCHILD ENGINE & AIRPLANE CORP.,  
Hagerstown, Md., June 30, 1953.

HON. STYLES BRIDGES,  
Senate Office Building,  
Washington, D. C.

DEAR SENATOR BRIDGES: There is transmitted a statement on behalf of the Fairchild Engine & Airplane Corp. for the record in the hearings which your Preparedness Subcommittee is conducting with respect to the procurement of C-119 cargo aircraft.

I am appreciative of the opportunity to state the position of Fairchild in this matter.

Respectfully yours,

RICHARD S. BOUTELLE.

STATEMENT BY RICHARD S. BOUTELLE, PRESIDENT, FAIRCHILD ENGINE & AIRPLANE CORP.

I appreciate the opportunity to state the position of Fairchild Engine & Airplane Corp. with respect to the procurement of C-119 cargo aircraft, the matter involved in these hearings. I do so on behalf of the 15,000 stockholders and 12,500 employees of Fairchild, who are justly proud of their company's name and record.

We are anxious to contribute any information or data we have which may be pertinent to this inquiry. We have nothing to hide. We want most of all, however, to devote our entire energies once again to the thing we know best—the manufacture of airplanes efficiently and at low cost for the military requirements of our country.

Statements have been made before this subcommittee that Fairchild failed to supply proper and adequate technical advice and assistance to Kaiser-Frazer Corp., the second source producer of C-119 aircraft.

The simple facts are:

At the very start of the program, channels for such complaints were established by agreement between Mr. Edgar Kaiser and me.

During the 31 months since Kaiser-Frazer entered the C-119 program, Mr. Kaiser has not complained to me and a search of our records does not uncover a single letter or other written communication from a responsible official of Kaiser-Frazer Corp. complaining of any failure on our part to supply adequate and proper technical assistance and data.

Requests for additional information and material, and for the corrections of the inevitable errors, were made, as a matter of routine, at the operating levels. The material and information, and the corrections when necessary, were promptly supplied.

Significantly, neither did we receive any complaints from the Air Force, for which both Kaiser-Frazer and ourselves were working.

The fact is that we did our best. We did not lightly undertake the task or its execution. Fairchild is not inexperienced in working with second source producers. We worked with seven of them during World War II. Indeed, we have worked with as many, if not more, second source suppliers than any other company in the aircraft industry.

One of the primary lessons we learned from that experience is that technical assistance, to be effective, must be a two-way street. It must not only be given freely; it must be received in a cooperative spirit and effectively applied to be of real value in establishing efficiency and reducing costs (see attachment A). This was true in our relationships with second source producers in World War II, which were both large and small companies. The largest of these was North American Aviation, the second source on our C-82. As an example, and by way of contrast, our association with North American Aviation began in late December 1944. Less than 8 months later, when V-J Day brought termination of its contract, the first North American-built C-82 was flying, and its assembly lines were primed and ready to roll up to a rate of 150 airplanes a month. This was accomplished in the face of the fact that the C-82 was a new airplane, and the information provided by Fairchild to North American was far less extensive than that supplied to Kaiser-Frazer. Not only did Fairchild provide basic data, but our best operations personnel, all having long experience with the C-119, were made

available to Kaiser-Frazer Corp. One hundred and thirty-one Fairchild employees, having a cumulative total of 1,538 years of aircraft experience, gave 40,000 man-hours of on-the-spot assistance at the Willow Run plant.

In the light of these facts, and they are facts, we do not feel compelled to dwell further upon this phase of the testimony.

Much has been heard in these hearings about the cost of the first Fairchild airplanes had they been produced at a different place, at a different time, and under different conditions; and about what the eventual cost of production by Kaiser-Frazer might be in the future. On this point, there is an attachment entitled "Attachment B" which we believe provides an answer to specific questions asked by members of the subcommittee.

The record shows that for approximately the same amount of money (\$212,923,341) which the Air Force has estimated would have been the cost of production of 159 C-119 airplanes by Kaiser-Frazer, the Government actually obtained from Fairchild the following:

- (1) The assembly plant at Hagerstown, including machinery and equipment, which the Government still owns;
- (2) The design, engineering and development of the XC-82 cargo airplane, together with three prototype experimental airplanes;
- (3) The delivery of 219 C-82 cargo aircraft, including all necessary pre-production, plant rearrangement and tooling costs; and
- (4) The delivery of 360 C-119 cargo aircraft, including all necessary pre-production, plant rearrangement, engineering, and tooling costs.

Total: 582 cargo airplanes, plant, design and tooling, in addition to an experienced, efficient work force.

It has been the aim of Fairchild to produce to the best of its ability, and on time, quality products needed for national defense. It is significant that we have met our airplane delivery schedules during the entire 31 months since the initial letter of intent was issued to Kaiser-Frazer to build C-119's. Also, during this period, Fairchild had processed and incorporated twice as many engineering changes applicable to C-119 aircraft as had Kaiser-Frazer. The records of the Air Force show we are consistently one of the lowest cost producers in the entire aircraft industry.

We very much regret that, despite our best efforts to help Kaiser-Frazer, their program has been so costly. As the subcommittee has been told, Fairchild strenuously and openly opposed the entry of Kaiser-Frazer into the C-119 program. After our agreement with the Air Force to proceed, however, we provided all the help humanly possible. We sought to carry out not only the letter but the spirit of the agreement.

#### ATTACHMENT A

##### INTRODUCTION OF THE "OMAHA PACKAGE" INTO THE KAISER-FRAZER C-119 PROGRAM

During World War II, the Air Force gained extensive experience in the delays, difficulties, and costs inherent in substantially expanding aircraft production. In an effort to minimize these problems for the future, as well as to permit continued production of existing military aircraft in the event of the loss of the "mother plant" as a result of enemy action or other catastrophe, the Air Force, prior to the end of the war, requested the major military aircraft producing companies to submit their ideas as to how the problem could best be met. The Air Force advised that, after receipt and evaluation of such proposals, one or more of the companies would be given contracts to develop their proposals into detailed working procedures. Fairchild submitted its proposal and later was awarded a contract for this second phase. Subsequent to its completion, Fairchild was awarded another contract to actually establish and maintain the data in accordance with its plan and procedure. The data were stored by the Air Force at its standby plant at Omaha, Nebr. Thus, the "Omaha package" came into being.

In essence, this "package" included the engineering and tooling drawings, the procurement and production information including that for subcontractors, the quality control information, and all of the myriad related data requisite to having the mother plant organization get C-119 production under way in another location with a minimum of delay and cost.

Because of the prohibitive cost of doing otherwise, certain shortcuts were decided upon by the Air Force—the one of primary interest here being that,

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when once established, the data would be brought up to date only once in each 6 months.

The extent of the data involved in such an undertaking on a single military aircraft such as the C-119 is understood when it is realized that it included 7,100 van dykes of engineering drawings (from which blue prints could be reproduced), 40,000 operation sheets, 9,000 van dykes of tool design drawings, and 960 master layout photo templates on glass, which could be used to make full scale reproductions on metal.

Because of the 6-month interval between revisions, the "Omaha package" in January 1951, was up to date for Fairchild Ship No. 362, whereas the specification established by the Air Force for Kaiser-Frazer Ship No. 1 was the equivalent of Fairchild Ship No. 450, plus many additional changes which the Air Force included in the specification. Among these additional changes were two of major consequence:

(1) The change of the engines from the Pratt-Whitney 4360's to the Curtiss-Wright 3350's; and

(2) The change of the landing gear and flap actuation from electric to hydraulic. In January 1951, the Fairchild plant was closed by a strike which interrupted shipments of data to Willow Run. To prevent this situation from delaying Kaiser-Frazer, the Air Force decided to turn over to Kaiser-Frazer the "Omaha package." The first shipment was delivered to Willow Run on January 29, 1951. Fairchild, recognizing the danger to the Kaiser-Frazer program if the limitations of the "Omaha package" were not fully understood, made the subject the primary topic of a meeting held in the Office of Kaiser-Frazer's executive vice president and general manager, Mr. John Hallett, at Willow Run the next day, January 30, 1951. This meeting was attended by all of the Kaiser-Frazer and Fairchild department heads concerned with the C-119 program as well as by Mr. Paul J. Frizzell, vice president of Fairchild Engine & Airplane Corp., who had arranged the meeting. After a thorough explanation of the "Omaha package" and its limitations and a warning as to the results which would follow its misuse, the Fairchild people made two specific recommendations, as follows:

(1) That the data be kept intact in a central place under rigid control;

(2) That, if any copies were made and distributed, each sheet of such copy be identified by a rubber stamp—"Omaha package" or "For planning purposes only."

Mr. Hallett and his people stated that they fully understood the problem and would later decide upon adopting the Fairchild suggestion or take other steps which would protect themselves against the hazard. The first evidence that Fairchild had indicating that Kaiser-Frazer had not followed the course so strongly urged came in an accidental contact with the supplier to Fairchild of engine mounts for the Pratt and Whitney 4360 engines, who advised of receiving an order from Kaiser-Frazer for such mounts. In other words, Kaiser-Frazer, misusing the data contained in the "Omaha package," placed an order for mounts for an engine which they and everyone else concerned with the program was not to be used in their C-119's.

Fairchild immediately checked Willow Run and found that the original data contained in the "Omaha package" had been distributed throughout the Willow Run organization and that no attempt whatever had been made to identify it so as to prevent its becoming mixed with the current, correct data which by then had been delivered to Willow Run by Fairchild.

More than 1 year later parts of the "Omaha package" were found in the paper work system at Kaiser-Frazer, and it is believed that some of it is there today.

## ATTACHMENT B

*Comparative airplane costs (per Air Force recorded costs for Fairchild and Air Force estimated costs for Kaiser-Frazer)*

	Fairchild	Kaiser-Frazer
Unit cost, first 71.4 C-119 airplanes.....	\$450, 139	\$2, 159, 864
Total cost, first 71.4 C-119 airplanes.....	32, 143, 525	154, 071, 526
Unit cost, first 169 C-119 airplanes.....	346, 695	1, 339, 140
Total cost, first 169 C-119 airplanes.....	58, 172, 251	212, 923, 341
Present Fairchild unit cost, \$265, 067.		

<sup>1</sup> 71.4 airplanes represent the estimated equivalent airplanes completed by Kaiser-Frazer at April 30, 1953. The above Fairchild cost to the Government include initial design, engineering, tooling, and preproduction cost.

## APPENDIXES

## APPENDIX A

Comparative report of costs of C-119 airplane for periods Dec. 20, 1950 through Apr. 30, 1953, contract No. AF 33(038)18481

Lot No. Number of ships in lot	1 14				2 16				Total of lots 1 and 2 30			
	Jan. 31, 1952	July 31, 1953	Oct. 31, 1952	Apr. 30, 1953	Jan. 31, 1953	July 31, 1953	Oct. 31, 1952	Apr. 30, 1953	Jan. 31, 1953	July 31, 1953	Oct. 31, 1952	Apr. 30, 1953
<b>AIRPLANE MANUFACTURE</b>												
Total hours at \$1.02	916, 271	1, 848, 112	1, 839, 438	1, 939, 438								
Manufacturing burden												
Factory burden	\$4, 811, 522.80	\$9, 806, 233.09	\$10, 555, 682.15	\$10, 555, 682.15	\$1, 116, 926.16	\$2, 370, 301.73	\$7, 925, 768.33	\$10, 445, 371.08	\$5, 028, 448.96	\$15, 293, 524.82		
Portable tools and equipment	36, 806.31	105, 463.56	126, 831.51	126, 831.51	8, 544.14	57, 281.00	96, 307.26	143, 554.80	45, 330.45	162, 694.56		
Engineering expense	1, 296, 644.12	1, 807, 090.33	1, 852, 110.27	1, 852, 110.27	309, 968.33	728, 497.57	900, 593.53	831, 055.77	1, 597, 642.45	2, 536, 196.90		
Total manufacturing burden	6, 144, 973.23	11, 809, 395.98	12, 534, 724.93	12, 534, 724.93	1, 426, 468.63	6, 156, 080.30	8, 921, 672.94	11, 521, 141.65	7, 571, 441.86	17, 935, 426.28		
Direct labor dollars	1, 730, 240.51	3, 618, 366.76	3, 559, 481.39	3, 559, 481.39	408, 382.51	1, 963, 547.25	2, 897, 904.51	3, 819, 331.29	2, 167, 623.02	5, 581, 914.01		
Production material	165, 509.08	1, 167, 536.41	1, 455, 894.78	1, 455, 894.78	125, 287.69	498, 833.48	1, 201, 921.96	1, 590, 151.26	290, 796.77	1, 656, 393.89		
Subtotal	8, 069, 722.82	16, 595, 299.15	17, 880, 106.30	17, 880, 106.30	1, 960, 138.83	8, 658, 411.03	13, 021, 499.41	16, 930, 624.20	10, 020, 861.65	25, 203, 710.18		
General and administrative expense	394, 060.87	810, 514.17	864, 523.88	864, 523.88	91, 477.68	438, 834.58	640, 130.61	855, 630.21	485, 547.55	1, 250, 348.75		
Home office expense	110, 832.15	227, 857.13	243, 147.34	243, 147.34	25, 728.10	123, 703.48	182, 567.98	240, 617.57	136, 560.25	351, 690.61		
Total	8, 574, 624.84	17, 633, 770.45	18, 987, 771.32	18, 987, 771.32	2, 077, 344.61	9, 171, 949.09	13, 863, 198.00	18, 026, 772.28	10, 651, 969.45	26, 805, 719.54		
Subcontractors cost paid by prime contractor				4, 422, 456.34				5, 205, 909.19				
Total costs (excluding nonrecurring costs)				23, 410, 227.86				23, 232, 682.27				

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Comparative report of costs of C-119 airplane for periods Dec. 20, 1950, through Apr. 30, 1953, contract No. AF 33(038)18481—Continued

Lot No. Number of ships in lot.	Total of lots 1 and 2 30			Total of lots 3 to 7 129					Total 159		
	Oct. 31, 1952	Apr. 30, 1953	Jan. 31, 1952	Jan. 31, 1953	July 31, 1953	Oct. 31, 1953	Jan. 31, 1953	Apr. 30, 1953	July 31, 1953	Oct. 31, 1953	Apr. 30, 1953
PERIOD											
AIRPLANE MANUFACTURE											
Total hours at \$1.92	3,395,671	3,830,190	94,010	521,552	1,772,543	4,579,097	1,222,980	3,371,474	5,168,214	8,409,287	
Manufacturing burden:											
Factory burden	\$18,481,450.98	\$21,001,553.23	\$493,645.37	\$2,795,832.69	\$9,647,331.62	\$25,522,044.97	\$6,422,114.33	\$18,062,367.51	\$28,128,782.60	\$46,523,598.20	
Portable tools and equipment	222,258.79	270,516.31	3,775.37	29,794.80	116,008.68	350,818.53	49,128.82	192,439.36	338,247.47	621,334.84	
Engineering expense	2,732,707.10	2,783,796.04	133,036.95	364,443.50	825,842.98	1,021,700.56	1,730,679.40	2,900,640.40	3,378,550.08	3,805,496.60	
Total manufacturing burden	21,456,396.87	24,055,865.58	630,478.69	3,190,070.99	10,589,183.28	26,894,564.06	8,201,920.55	21,155,497.27	32,045,580.15	50,950,429.64	
Direct labor dollars	6,737,386.10	7,678,812.88	180,499.23	1,022,242.30	3,527,390.74	9,331,545.50	2,348,122.24	6,004,196.31	10,284,746.84	17,010,456.38	
Production material	2,687,816.74	3,076,046.04	178,493.62	433,043.49	1,202,995.60	3,666,691.35	490,290.39	2,089,413.38	3,860,812.34	6,742,737.39	
Subtotal	30,901,599.71	34,810,724.50	989,471.53	4,645,356.78	15,319,539.62	39,892,898.91	11,019,333.18	29,849,066.96	46,321,139.22	74,703,623.41	
General and administrative expense	1,513,694.49	1,730,054.09	40,431.85	228,982.27	790,128.81	2,090,288.14	525,979.38	1,478,531.02	2,393,783.30	3,810,842.23	
Home office expense	423,713.32	483,763.21	11,371.45	64,401.24	222,223.73	557,893.54	147,931.70	416,061.85	647,938.05	1,071,658.75	
Total	32,840,969.52	37,014,543.80	1,041,274.81	4,938,740.29	16,331,892.16	42,571,080.59	11,693,244.26	31,744,459.83	49,172,861.68	79,585,624.39	
Subcontractor's cost paid by prime contractor		9,628,366.33				23,368,623.31	5,441,873.73	17,712,767.65	22,466,259.35	32,991,989.64	
Total costs (excluding non-recurring costs)		46,642,910.13				65,939,703.90	17,135,117.99	49,457,227.48	71,639,121.03	112,577,614.03	
Nonrecurring costs:											
Preproduction expense:											
Plant rearrangement							636,102.87	932,160.85	931,412.14	934,090.19	
Partial occupancy costs							1,668,683.02	1,738,684.82	2,041,682.69	2,027,303.90	
Contract termination costs								32,234.08	91,672.54	647,894.50	
Portable tools and equipment							1,371,133.87	1,227,161.87	1,051,999.76	766,612.33	
Preproduction manufacturing burden							9,649,894.51	16,378,903.85	15,775,664.30	14,860,438.43	
Preproduction administrative							1,040,491.62	1,537,137.34	1,500,705.28	1,682,656.37	
Home office expense							273,044.41	341,834.86	235,318.25	350,297.32	
Total preproduction expense							14,689,260.30	22,188,137.65	21,687,454.96	21,269,293.04	

Project tooling	10,776,576.34	13,401,666.16	13,616,048.13	13,344,505.95
Subtotal, nonrecurring costs				
Total costs (including nonrecurring costs)	25,465,836.64	35,889,803.85	35,303,503.09	34,613,798.99
Fixed fee earned				
Total cost and fee earned	42,600,954.63	85,047,031.31	106,942,624.12	147,191,413.02
Total cost and fee (excluding nonrecurring costs)	244,304.12	859,488.72	1,723,548.26	3,171,645.22
Total cost and fee (excluding nonrecurring costs)	42,845,258.75	86,006,520.03	108,666,172.38	150,363,058.24
Total cost and fee (excluding nonrecurring costs)	\$17,379,422.11	\$50,416,716.20	\$73,362,669.20	\$115,749,259.24
Total equivalent airplanes completed	55	21.6	38.8	71.4
Average unit selling price (excluding nonrecurring costs)	\$3,159,894.92	\$2,334,107.23	\$1,890,700.45	\$1,621,138.08
Unit air-frame weight (pounds)	30,000	30,000	30,000	30,000
Dollars per air-frame pound (excluding nonrecurring costs)	\$105.33	\$77.80	\$63.03	\$54.04
Average unit production hours	222,300	156,087	133,201	117,777
Units on site equivalent air-frame weight (pounds)	21,800	21,800	21,800	21,800
House per air-frame pound	10,200	7,160	6,110	3,403

Report of costs of C-119 airplane for period Dec. 20, 1950, through Jan. 31, 1952—Contract No. AF 33(038)18481

Lot No. Number of ships in lot	1 14	2 16	Total, 1 and 2 30	Total, 3 to 7 120	Total, planes 159	Spares	Other	Total costs incurred
AIRPLANE MANUFACTURE								
Total hours at \$1.92	916, 271	212, 699	1, 128, 970	94, 010	1, 222, 980		871	1, 223, 851
Manufacturing burden:								
Factory burden	\$4, 811, 522.90	\$1, 116, 926.16	\$5, 928, 448.06	\$493, 665.37	1\$8, 422, 114.33			1\$8, 422, 114.33
Portable tools and equipment	36, 806.31	8, 544.14	45, 350.45	3, 778.37	49, 128.82			49, 128.82
Engineering expense	1, 296, 644.12	300, 968.33	1, 597, 612.45	183, 038.95	1, 780, 679.40			1, 780, 679.40
Total manufacturing burden	6, 144, 973.23	1, 426, 468.63	7, 571, 441.86	630, 478.69	8, 201, 920.55			8, 201, 920.55
Direct labor dollars	1, 759, 240.51	408, 382.51	2, 167, 623.02	180, 490.22	2, 348, 112.24			2, 348, 112.24
Production material	165, 699.08	125, 287.69	290, 986.77	178, 493.62	469, 200.39			469, 200.39
Subtotal	8, 069, 722.82	1, 960, 138.83	10, 029, 861.65	989, 471.53	11, 019, 333.18			11, 019, 333.18
General and administrative expense	394, 069.87	91, 477.68	485, 547.55	40, 431.83	525, 979.38			525, 979.38
Home office expense	110, 832.15	25, 728.10	136, 560.25	11, 371.45	147, 931.70			147, 931.70
Total	8, 574, 624.84	2, 077, 344.61	10, 651, 969.45	1, 041, 274.81	11, 693, 244.26			11, 693, 244.26
Subcontractor's costs paid by prime contractor					5, 441, 873.73			5, 441, 873.73
Total costs (excluding nonrecurring costs)					17, 135, 117.99			17, 135, 117.99
Nonrecurring costs:								
Preproduction expense:								
Partial rearrangement					686, 102.87			686, 102.87
Partial occupancy costs					1, 668, 683.02			1, 668, 683.02
Contract termination costs					10			10
Portable tools and equipment					1, 371, 133.87			1, 371, 133.87
Preproduction manufacturing burden					9, 649, 804.51			9, 649, 804.51
Preproduction administrative expense					1, 040, 491.62			1, 040, 491.62
Preproduction home office expense					273, 044.41			273, 044.41
Total preproduction expense					14, 689, 260.30			14, 689, 260.30
Project tooling					10, 776, 576.34			10, 776, 576.34
Subtotal, nonrecurring costs					25, 465, 836.64			25, 465, 836.64
Total costs (including nonrecurring costs)					42, 600, 954.63			42, 600, 954.63
Fixed fee earned					4, 244, 304.12			4, 244, 304.12
Total cost and fee earned					42, 845, 258.75			42, 845, 258.75
Total cost and fee (excluding nonrecurring costs)					\$17, 379, 422.11			\$17, 379, 422.11

Includes fixed costs as follows:	
Depreciation and amortization	\$383, 135. 68
Taxes and insurance	238, 922. 26
Total	622, 057. 94

A total of \$569,301.06 in termination costs were incurred in later months applicable to termination (effective Jan. 14, 1952) of tooling ordered for Fairchild Aircraft Division, Chicago, Ill.  
 Includes \$1,583,043.49 cost of completed tools purchased for Fairchild Aircraft Division, Chicago, Ill.  
 Includes (in accordance with Mr. Deylin's instructions): Equivalent airframe cost of 5.5 divided by total airplanes, 159, equals 3.459 percent. 3.459 percent times 082,854 equals \$244,304.42. Does not include evaluation of portion of additional fee for engineering changes covered by Contract Change Notices Nos. 10 and 12.  
 The total costs and fee of \$17,379,492.11 shown above does not include the cost of major

Report of costs of C-119 airplane for period Dec. 20, 1950, through July 31, 1952—Contract No. AF 33(038)18481

Lot No. Number of ships in lot	1 14	2 16	Total, 1 and 2 30	Total, 3 to 7 120	Total, planes 169	Spares	Other	Total costs incurred
<b>AIRPLANE MANUFACTURE</b>								
Total hours at \$1.96	1,848,112	1,001,810	2,849,922	521,552	3,371,474	7,499	3,923	3,382,896
Manufacturing burden:								
Factory burden	\$8,896,253.09	\$5,370,301.73	\$14,266,554.82	\$2,705,832.69	1 \$18,062,387.51	\$40,194.77		1 \$18,102,582.27
Portable tools and equipment	105,463.56	57,231.00	162,694.56	24,794.80	192,489.36	428.47		192,917.83
Engineering expense	1,807,696.33	728,497.57	2,536,193.90	364,443.50	2,900,640.40	4,040.41		2,904,680.81
Total manufacturing burden	11,809,395.98	6,156,030.30	17,965,426.28	3,100,070.99	21,155,497.27	44,668.65		21,200,165.92
Direct labor dollars	3,618,368.76	1,963,547.25	5,581,916.01	1,022,242.30	6,604,158.31	14,098.27	\$7,680.78	6,626,544.36
Production material	1,167,536.41	488,833.48	1,656,369.89	433,043.49	2,089,413.38	49,286.98	10,808,314.41	12,947,014.77
Subtotal	16,595,290.15	8,608,411.03	25,203,701.18	4,645,356.78	29,849,058.96	108,653.90	10,816,004.19	40,773,725.05
General and administrative expense	810,514.17	430,834.58	1,241,348.75	228,982.27	1,470,331.02	3,292.41		1,482,623.43
Home office expense	227,957.13	123,703.48	351,660.61	64,401.24	416,061.85	925.99		416,987.84
Total	17,633,770.45	9,171,949.09	26,805,719.54	4,938,740.29	31,744,459.83	112,872.30	10,816,004.19	42,673,336.22
Subcontractor's cost paid by prime contractor					17,712,767.65			17,712,767.65
Total costs (excluding nonrecurring costs)					49,457,227.48	112,872.30	10,816,004.19	60,386,103.97
Nonrecurring costs:								
Preproduction expense:								
Partial rearrangement					932,160.85			932,160.85
Partial occupancy cost					1,738,684.82			1,738,684.82
Contract termination cost					1,392,224.08			1,392,224.08
Portable tools and equipment					1,227,161.87			1,227,161.87
Preproduction manufacturing burden					16,378,903.85			16,378,903.85
Preproduction administrative expense					1,637,157.24			1,637,157.24
Preproduction home office expense					341,834.80			341,834.80
Total preproduction expense					22,188,137.67			22,188,137.67
Project tooling					13,401,666.16			13,401,666.16
Subtotal, nonrecurring costs					35,589,803.83			35,589,803.83
Total costs (including nonrecurring costs)					85,047,031.31	112,872.30	10,816,004.19	95,975,907.80
Fixed fee earned					1,909,488.72			1,909,488.72
Total cost and fixed fee earned					86,956,520.03	112,872.30	10,816,004.19	96,965,396.52
Total cost and fixed fee (excluding nonrecurring costs)					1 \$50,416,716.20			



Report of costs of C-119 airplane for period Dec. 20, 1950, through Oct. 31, 1952—Contract No. AF 33(038) 18481

Lot number Number of planes in lot	Lot 1 14	Lot 2 16	Total, 1 and 2 30	Total, 3 to 7 129	Total planes 159	Spare	Other	Total cost
<b>AIRPLANE MANUFACTURE</b>								
Total hours at \$1.99	1,939,438	1,456,233	3,395,671	1,772,543	5,168,214	16,824	433	5,185,471
Manufacturing burden:								
Factory burden	\$10,555,682.15	\$7,925,708.83	\$18,481,450.98	\$9,647,331.62	\$28,128,782.60	\$107,256.09		\$28,236,038.69
Portable tools and equipment	126,931.51	95,307.28	222,238.79	116,008.68	338,247.47	1,286.84		339,534.31
Engineering expense	1,852,110.27	900,596.83	2,752,707.10	825,842.98	3,578,550.08	8,556.35		3,587,106.43
Total manufacturing burden	12,534,723.93	8,921,672.94	21,456,396.87	10,589,183.28	32,045,580.15	117,099.28		32,162,679.43
Direct labor dollars	3,859,481.59	2,897,904.51	6,757,386.10	3,527,360.74	10,284,746.84	39,216.12	\$862.29	10,324,825.25
Production material	1,485,894.78	1,201,921.96	2,687,816.74	1,202,955.60	3,890,812.34	235,070.08	10,130,915.99	14,257,398.41
Subtotal	17,880,100.30	13,021,499.41	30,901,599.71	15,319,539.62	46,221,139.33	391,985.48	10,131,778.28	56,744,903.09
General and administrative expense	864,523.88	649,130.61	1,513,654.49	790,128.81	2,303,783.30	8,784.41		2,312,567.71
Home office expense	243,147.34	182,567.98	425,715.32	222,223.73	647,939.05	2,470.62		650,409.67
Total	18,987,771.52	13,853,198.00	32,840,969.52	16,331,892.16	49,172,861.68	403,240.51	10,131,778.28	59,707,880.47
Subcontractors' costs paid by prime contractor					22,466,259.35			22,466,259.35
Total costs (excluding nonrecurring costs)					71,639,121.03	403,240.51	10,131,778.28	82,174,139.82
Nonrecurring costs:								
Preproduction expense:								
Plant rearrangement					931,412.14			931,412.14
Partial occupancy costs					2,041,682.69			2,041,682.69
Contract termination costs					1,911,672.54			1,911,672.54
Portable tools and equipment					1,051,999.76			1,051,999.76
Production manufacturing burden					15,775,664.30			15,775,664.30
Preproduction administrative expense					1,509,705.28			1,509,705.28
Preproduction home office expense					285,318.25			285,318.25
Total preproduction expense					21,687,454.96			21,687,454.96
Project tooling					13,616,048.13			13,616,048.13
Subtotal (nonrecurring costs)					35,303,503.09			35,303,503.09
Total costs (including nonrecurring costs)					106,942,624.12	403,240.51	10,131,778.28	117,477,642.91
Fixed fee earned					1,723,548.26			1,723,548.26
Total costs and fixed fee earned					108,666,172.38	403,240.51	10,131,778.28	119,201,191.17
Total cost and fixed fee (excluding nonrecurring costs)					4,873,362,689.29			4,873,362,689.29
Total equivalent airplanes completed					38.8			38.8

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<sup>1</sup> Represents, in part, termination costs applicable to terminations of tooling ordered for Fairchild Aircraft Division, Chicago, Ill. Total termination costs for Fairchild tooling amounted to \$669,301.08.



422

AIRCRAFT PROCUREMENT

Report of costs of C-119 airplane for period Dec. 20, 1950, through Apr. 30, 1953, contract No. AF33(098)18481

Lot No. Number of ships in lot	1 14	2 16	Total, 1 and 2 30	3 to 7 129	Total, 139	Spare	Other	Total costs incurred
<b>AIRPLANE MANUFACTURE</b>								
Total hours, at \$2.02	1,930,438	1,890,752	3,820,190	4,579,097	8,400,287	46,297	337	8,455,921
Manufacturing burden:								
Factory burden	\$10,555,882.15	\$10,445,871.08	\$21,001,553.23	\$25,522,044.97	\$46,523,568.20	\$255,775.70		\$46,779,373.90
Portable tools and equipment	128,931.51	143,584.80	270,516.31	\$25,550,813.53	3,805,496.60	3,515.30		624,850.14
Engineering expense	1,852,110.27	931,685.77	2,783,796.04	1,021,700.56	3,805,496.60	10,388.54		3,815,885.14
Total manufacturing burden	12,534,723.03	11,521,141.65	24,055,864.68	26,594,364.06	50,950,429.04	269,679.54		51,220,108.18
Direct labor dollars	3,839,481.69	3,819,331.29	7,658,812.98	9,331,643.50	17,010,456.38	63,519.45	\$881.53	17,104,657.36
Production material	1,453,894.78	1,590,131.26	3,044,026.04	3,666,691.35	6,742,737.39	2,037,698.35	8,806,396.08	17,586,831.82
Subtotal	17,880,100.30	16,930,624.20	34,810,724.50	39,892,898.91	74,703,623.41	2,400,897.34	8,807,077.61	85,911,598.36
General and administrative expense	884,523.88	855,530.21	1,740,054.09	2,090,288.14	3,810,342.23	20,948.36		3,831,290.59
Home office expense	243,147.34	240,617.87	483,765.21	587,893.54	1,071,658.75	5,891.73		1,077,550.48
Subtotal	18,967,771.52	18,036,772.28	37,004,543.80	42,571,080.59	79,585,624.39	2,427,737.43	8,807,077.61	90,820,439.43
Subcontractors cost paid by prime contractor	4,422,436.34	5,205,908.99	9,628,345.33	23,363,623.31	32,991,989.64			32,991,989.64
Total costs (exclusive of nonrecurring costs)	23,410,227.86	23,232,682.27	46,642,910.13	65,934,703.90	112,577,614.03	2,427,737.43	8,807,077.61	123,812,429.07
<b>Nonrecurring costs:</b>								
Reproduction expense:								
Plant rearrangement					984,090.19			984,090.19
Partial occupancy costs					2,027,303.90			2,027,303.90
Contract termination costs					\$ 647,894.50			\$ 647,894.50
Portable tools and equipment					766,612.33			766,612.33
Preproduction manufacturing burden					14,860,438.43			14,860,438.43
Preproduction administrative expense					1,682,656.37			1,682,656.37
Preproduction home office expense					350,297.32			350,297.32
Total preproduction expense					21,298,293.04			21,298,293.04
Project tooling					\$ 13,344,505.95			\$ 13,344,505.95
Subtotal (nonrecurring costs)					34,613,798.99			34,613,798.99
Total costs (including nonrecurring costs)					147,191,413.02	2,427,737.43	8,807,077.61	158,426,228.06
Fixed fee earned					\$ 3,171,645.22			\$ 3,171,645.22
Total costs and fixed fee earned					150,363,058.24	2,427,737.43	8,807,077.61	161,597,873.28
Total costs and fixed fee (excluding nonrecurring costs)					\$ 115,749,259.24			\$ 115,749,259.24
Total equivalent airplane completed					71.4			71.4

Average unit selling price (excluding nonrecurring costs)					
Unit airframe weight (pounds)					
Dollars per airplane earned (excluding nonrecurring costs)					
Average unit production hours					
Unit on site equivalent airframe weight (pounds)					
Hours per airframe pound					

<sup>1</sup> Includes fixed costs as follows:

Depreciation and amortization.....\$916,073.32  
Taxes and insurance.....622,041.97

Total.....1,538,115.29

<sup>2</sup> Subcontractors' costs are assigned to lots 1 and 2 in accordance with information supplied by the contractor. For earlier periods, such information was not readily available.

<sup>3</sup> Represents in part termination costs applicable to terminations of tooling ordered for Fairchild Aircraft Division, Chicago, Ill. Total termination costs on Fairchild tooling amounted to \$569,301.06.

<sup>4</sup> Includes \$1,563,043.40 cost of completed tools purchased for Fairchild Aircraft Division, Chicago, Ill.

<sup>5</sup> Fee computation (in accordance with Mr. Devlin's instructions): Equivalent airplanes 71.4, divided by total airplanes, 159, equals 44.96 percent. 44.96 percent times \$7,062,854 equals \$3,171,645.22. Does not include evaluation of portion of additional fee on engineering changes covered by Contract Change Notices Nos. 10 and 12.

<sup>6</sup> The total costs and fee of \$115,749,239.24 shown above does not include the cost of major assemblies, subassemblies, and primary parts supplied by Fairchild Aircraft Division under a technical assistance agreement. It is estimated that the initial 14-ship sets of components and priming parts reduced the Willow Run on-site task by 4.57 equivalent airplanes, while the additional 16-ship sets of priming parts reduced the Willow Run on-site task by 3.68 equivalent airplanes, or a total of 8.25 equivalent ships for the 30-ship sets of components and priming parts. A portion of the evaluation of the equivalent ships supplied by Fairchild is applicable to the equivalent ship completion shown above.

The figure of 71.4 for equivalent ships completed does not include an evaluation of the following costs: (a) Subcontractors' costs representing on-site subassemblies which have not been released to the production line. (b) Subcontractors' costs representing subassemblies and in-process work still in the subcontractors' plants. (c) Productive material released to the production line upon which no productive labor had been incurred. Within the time limitations imposed it has not been possible for either the contractor or the auditor to evaluate these costs in the computation of equivalent airframes completed.

<sup>7</sup> It will be necessary to further consider the effect of qualifications (1) and (2) above on the average unit selling price (\$1,621,138.08) and dollars per airframe pound (\$34.04).

Report of open commitments as of Jan. 31, 1952, July 31, 1952, Oct. 31, 1952, and Apr. 30, 1953, under contract—AF 33 (038)—18481

	Open commitments as of—			
	Jan. 31, 1952 (1)	July 31, 1952 (2)	Oct. 31, 1952 (3)	Apr. 30, 1953 (4)
Project tooling.....	\$1,242,901	\$1,233,641	\$1,020,348	\$250,000
Processing engineering.....	103,725			
Production material.....	15,284,702	10,113,726	6,639,208	5,399,854
Major subcontractors.....	10,783,151	10,750,132	17,984,380	13,946,325
Total open commitments.....	27,474,479	22,097,499	25,652,936	19,596,179

Actual number of planes outfactory and planes accepted by Air Force—Contract AF 33 (038) 18481

	Planes, outfactory	Planes ac- cepted by Air Force	Planes, flyaway
As at Jan. 31, 1952.....	None	None	None
As at July 31, 1952.....	9	7	4
As at Oct. 31, 1952.....	14	10	7
As at Apr. 30, 1953.....	44	44	37

Estimated contract costs per Air Force accountant—Contract No. AF 33(038) 18481

Production materials.....	\$14,368,938
Direct labor.....	28,474,992
Factory burden.....	87,520,468
Engineering.....	4,695,942
Administrative.....	9,012,046
Subcontracts.....	36,187,711
Airplanes.....	180,260,097
Special tooling.....	19,353,892
Plant rearrangement.....	2,400,333
Portable tools.....	1,793,931
Subtotal.....	23,548,156
Clause 4 (no fee items).....	2,038,567
Total contract costs.....	205,846,820
Fee.....	7,076,521
Grand total contract.....	212,923,341
Spares and fee.....	10,070,784
Grand total.....	222,994,125

Adjustment to first quarter, 1951 per audit report

Adjustment for 1st quarter, transfer of costs from direct charge to allocable and revisions of allocation bases.....	\$176,084.77
Effect of excluding vacation hours from bases.....	57,537.38
Total adjustment to 1st quarter (including vacation hours).....	233,622.15

*Summary of suspended, disapproved and nonallowable costs, including cost of Edgar Kaiser's open letter published in reply to Senator Styles Bridges as of Feb. 28, 1953—Contract No. AF 33 (038)-18481*

Suspended costs:	
Pending proper documentation.....	\$24, 544. 92
Pending proper approvals.....	45, 775. 61
Total suspended costs.....	\$70, 320. 53
Disapproved costs:	
Concurred in by Kaiser:	
Labor:	
Vacation payments.....	\$715, 631. 44
Other labor costs adjustments.....	213, 885. 95
	<u>929, 517. 39</u>
Miscellaneous:	
Payroll taxes.....	100, 829. 63
Duplicate charges (burden and direct).....	612, 347. 90
Other burden adjustments.....	505, 652. 99
Direct charges reaccounted.....	87, 151. 60
E. Kaiser's Senator Bridges letter.....	4, 864. 65
Total concurred in by Kaiser.....	<u>1, 310, 846. 77</u>
	2, 240, 364. 16
Not concurred in by Kaiser:	
Burden adjustments due to shifting of vacation hours in burden bases.....	<u>350, 281. 29</u>
Total disapproved costs.....	2, 590, 645. 45
Nonallowable costs (note 1):	
Interest expense.....	\$1, 362, 267. 76
Dedication of first C-119 airplane.....	61, 620. 65
Traveling and entertainment expenses.....	72, 533. 12
Miscellaneous expenses.....	<u>132, 038. 85</u>
Total nonallowable costs.....	<u>1, 628, 460. 38</u>
Total suspended, disapproved and nonallowable costs.....	4, 289, 426. 36

NOTE 1.—The contractor has recognized that the above-listed nonallowable costs are not eligible for reimbursement by the Government.

Estimated costs and fixed fee as of Apr. 30, 1953—Contract AF 33(038) 18481

Dated	Item No. 1 C-119F	C-119F units	Item No. 2 spare parts	Item No. 3 engineering changes	Item No. 4 special tooling	Item No. 5 extraordi- nary re- arranging portable tooling	Other allow- able	Item No. 6 services allot- ment	Subtotal esti- mated cost	Fixed fee	Total
Mar. 7, 1952											
June 10, 1952	\$137,673,000.00	200	\$10,854,273	\$1,103,063.00	\$17,117,800	\$4,297,020	\$1,604,329	\$25,000	\$172,649,545.00	\$7,787,854.00	\$180,437,399.00
									25,000.00		25,000.00
June 13, 1952	137,673,000.00	200	\$10,854,273	1,103,063.00	17,117,800	4,297,020	1,604,329	25,000	172,674,545.00	7,787,854.00	180,462,399.00
			8,288,136						8,288,136.00		8,288,136.00
Aug. 27, 1952	137,673,000.00	200	19,142,409	1,103,063.00	17,117,800	4,297,020	1,604,329	25,000	180,902,681.00	7,787,854.00	188,750,535.00
	108,114.62			(112,979.78)					(4,865.16)		
Oct. 1, 1952	137,781,114.62	200	19,142,409	990,083.22	17,117,800	4,297,020	1,604,329	25,000	180,967,816.84	7,792,719.16	188,750,535.00
	411,833.45			(430,470.46)					(18,537.01)		
Dec. 4, 1952	138,193,048.07	200	19,142,409	559,612.76	17,117,800	4,297,020	1,604,329	25,000	180,989,278.83	7,811,266.17	188,750,535.00
	4,477,951.93	(41)		(69,857.69)	2,946,140	2,295,980			9,720,071.93	(748,402.17)	8,971,669.76
Feb. 6, 1953	142,671,000.00	159	19,142,409	559,612.76	20,064,000	6,593,000	1,604,329	25,000	190,669,350.76	7,062,854.00	197,722,204.76
	66,849.46			(69,857.69)					(3,008.23)		
Feb. 18, 1953	142,737,849.46	159	19,142,409	489,755.07	20,064,000	6,593,000	1,604,329	25,000	190,656,342.53	7,065,862.23	197,722,204.76
				1,000,000.00					1,000,000.00		1,000,000.00
Apr. 3, 1953	142,737,849.46	159	19,142,409	1,489,755.07	20,064,000	6,593,000	1,604,329	25,000	191,656,342.53	7,065,862.23	198,722,204.76
	236,871.38			(247,530.59)					(10,659.21)		10,659.21
	142,974,720.84	159	19,142,409	1,242,224.45	20,064,000	6,593,000	1,604,329	25,000	191,645,683.32	7,076,521.44	198,722,204.76

NOTE.—The total contract figure of \$198,722,204.76 differs from the contractors figure which is \$199,265,655. The difference being the total of change orders 7 and 8, \$112,979.78 and \$430,470.46, respectively, making up the difference of \$53,450.24. The contractor claims change orders 7 and 8 effect supplemental agreement No. 9 even though the agree ment was dated after the change orders.

Average cost of continued C-119 production by month to April 15, 1954—Contract  
AF33(038)-18481

	Contract costs	
	Including fixed fee	Excluding fixed fee
Actual costs incurred as of Apr. 3, 1953.....	\$161,597,873	\$153,426,223
Estimate to complete—		
May 1953.....	5,219,924	4,887,931
June 1953.....	5,468,492	5,120,689
July 1953.....	5,717,061	5,353,448
August 1953.....	5,219,924	4,887,931
September 1953.....	5,219,924	4,887,931
October 1953.....	5,468,492	5,120,689
November 1953.....	5,219,924	4,887,931
December 1953.....	5,468,492	5,120,689
January 1954.....	5,219,924	4,887,931
February 1954.....	4,971,357	4,655,172
March 1954.....	5,468,492	5,120,689
April 1954.....	2,734,246	2,560,345
Total estimated cost at completion.....	222,994,125	215,917,604

#### APPENDIX B

DEPARTMENT OF THE AIR FORCE,  
HEADQUARTERS, UNITED STATES AIR FORCE,  
Washington 25, D. C., July 7, 1953.

HON. STYLES BRIDGES,  
Chairman, Subcommittee on Aircraft Procurement,  
United States Senate, Washington, D. C.

DEAR MR. BRIDGES: In your letter of June 29, 1953, you requested a statement with respect to certain allegations by Kaiser-Frazer Corp. witnesses at recent hearings conducted by the Senate Armed Services Committee on Aircraft Procurement. This statement prepared by Mr. Sidney C. Solomon, Air Force resident auditor, is forwarded herewith.

Sincerely,

A. B. THOMAS,  
Acting Deputy Auditor General.

MEMORANDUM SUBMITTED BY SIDNEY C. SOLOMON, AIR FORCE RESIDENT  
AUDITOR, KAISER MOTORS CORP.

1. Mr. Chairman, members of the committee, on June 2 through 5 and 23-24, 1953, open hearings were conducted by your committee regarding award, production and costs of a contract by the Air Force to Willys Motors, Inc. (formerly Kaiser Manufacturing Corp.) a wholly owned subsidiary of Kaiser Motors Corp. (formerly Kaiser-Frazer Corp.), to manufacture C-119 aircraft.

2. On June 23 and 24, Henry J. Kaiser, chairman of the board of Kaiser Motors Corp., read into the record a 22 page prepared statement. He supplemented the statement by presenting for the record an 88 page memorandum.

3. The technical staff of your committee have requested that I submit for the record my comments on that portion of Henry J. Kaiser's statement and/or memorandum that is at variance with the facts and testimony or data submitted by me to your committee on June 5, 1953.

4. Mr. Kaiser stated on page 9 of the prepared statement that—

"We submitted it to the Air Force for approval some 4 months after the contract was awarded. This manual was approved, with minor changes, but not until 7 months after submission. After it was approved, it was, of course, necessary to go back and adjust the allocation of costs in accordance with the approved manual.

"It was not only unfair, but totally misleading, to create the impression that K-F was attempting to charge items to aircraft that should be automotive during that period of time when the manual had already been submitted by us but had not been approved by the Air Force.

"The committee's staff is thoroughly aware of the fact that the normal agreed procedure, now that the manual has been approved, is for us to take up any item

on which there may be any question for review with the Air Force Audit Section before submitting any claim for reimbursement.

"The cost of publishing the letter to Senator Bridges, in those towns only where K-F was operating plants, and in Washington, D. C., would normally, under the approved accounting procedure, have gone into the common account, to be distributed between automotive and aircraft costs. Because of the special circumstances involved, we raised the question of including this item, before submitting any claim, and K-F did not file a claim for reimbursement on this item."

The facts are that—

(1) Although the manual is dated April 1, 1951, it was presented to the Air Force for approval on June 18, 1951, some 6 months after the contract was awarded.

(2) The manual was approved by the Air Force with recommended changes on October 26, 1951, some 4 months later after considerable analysis and system survey.

(3) Kaiser personnel were instructed to comply with the manual, upon its issue, not to wait for approval. However, costs were not properly distributed in compliance with the stated procedures and policies of the manual.

(4) Agreed procedure now in effect was instituted in September 1952 some 11 months after the Air Force approval of the manual. Contractor personnel do now take up certain items that may be questioned before submitting a claim for reimbursement, but not all items.

(5) Under the approved accounting procedure the cost of publishing the letter to Senator Bridges would not normally have gone into the common overhead, to be distributed between automotive and aircraft costs. Kaiser personnel did not raise the question of including this item, the resident auditor raised the question as evidenced by the first paragraphs of attached interoffice correspondence dated January 16, 1953 and signed by Kaiser's general auditor, E. R. Jones (exhibit A), which states "The USAF auditor assigned to current audit has objected to the account distribution assigned on the basis that the charge represents advertising expense and consequently is not allowable."

5. Mr. Kaiser stated on page 10 of the prepared statement that—

"We never asked the Air Force to pay for vacations earned on automotive work: In fact, we ourselves proposed the vacation formula that was adopted."

The facts are that the Air Force was asked to pay for vacations earned on automotive work and Mr. Solomon objected and disallowed the cost. As conclusive evidence, attached hereto are the following:

(1) Interoffice correspondence dated December 28, 1951, from H. A. Koop, Kaiser's chief accountant to C. M. Hollis, Kaiser's vice president (exhibit B), which states in the last paragraphs of pages 4 and 5 " \* \* \* on December 13, 1951, Mr. Solomon informed the writer of two additional items which require investigation and disposition as follows: (b) Objection was taken to our method of charging vacation payments for wage and salary employees. It is believed that this should be the subject of further discussion prior to resolving what action will be pursued in arriving at an equitable distribution of these charges."

(2) Three audit instruction letters are attached (exhibit C, D, and E). They state clearly that the original policy of the contractor was to charge vacation pay to the department the employee was working at the time the vacation was paid. They also outline what steps were taken by the auditors, at the direction of the resident auditor, in order to remove automotive vacation pay from aircraft costs. In order to effect the necessary adjustments for incorrectly charged vacation pay, it was necessary to establish audit procedures to screen all wage and salary costs for the year 1951 and the first 6 months of 1952. This was accomplished through the media of audit instruction letters. The formula continually referred to by Mr. Kaiser was just a short cut in avoiding considerable detail clerical audit work.

(3) Formal disallowance by the Air Force resident auditor and contracting officer of \$169,581.85 "to transfer, in part, vacation pay for 1951 charged directly to aircraft instead of automotive" (exhibit F, 4 pages). Kaiser's acceptance of the disallowance is shown in exhibit F (sheet 4).

6. Mr. Kaiser states on page 26, paragraph 16 of the memorandum that—"This estimate totaled \$212,923,341. A check of his addition shows that it should be \$213,923,341."

The fact is that the schedule "Total contract costs as estimated by AF accountant" submitted by me to your committee in testimony on June 5, 1953 has no errors and should total \$212,923,341 as shown in exhibit G attached hereto.

7. Mr. Kaiser states on page 28, paragraph 21 of the memorandum that—"The footnote on the costs (tr., p. 337) states: 'With the time limitation imposed it has not been possible for either the contractor or the auditor to evaluate these

costs in the computation of the equivalent airframes completed.'” Implying that the footnote refers to all costs.

The fact is that the footnote referred to applied only to subcontractor's costs and production material released to the production line upon which no production labor had been incurred. The schedule with the referenced note is attached hereto (exhibit H). Your attention is invited to note G.

8. Mr. Kaiser states on page 29 that—“Senator Flanders questioned this method of amortizing special tooling and nonrecurring expenses, \* \* \*”

Reproduced as exhibit I is a transcript of the testimony. Senator Flanders did not question the method, but stated that he presumed the Kaiser-Frazor Co. would feel it unfair.

9. Mr. Kaiser states on page 53 that—“Mr. Solomon has recently estimated the cost of completion as \$213,923,341. Mr. Solomon's estimate is approximately \$15 million too high. Our principal reasons for disagreeing with Mr. Solomon are as follows:

“(a) Mr. Solomon estimates total burden as \$8,236,035 higher than our estimate. To reach this figure we would have to increase our average monthly burden expenditure by \$1 million per month. \* \* \*

“(b) Mr. Solomon estimates direct labor charges at \$5 million over our estimates; \* \* \* we believe the contract will be completed well within our estimate \* \* \*”

The facts are as follows:

(a) Mr. Solomon estimated the costs to completion as \$212,923,341, not \$213,923,341 as stated by Mr. Kaiser.

(b) Kaiser's estimated total burden is predicated on a December 31, 1953, unrealistic completion date. Mr. Solomon's estimated total burden is predicated on Air Force production personnel realistic estimated March 31, 1954, completion date. To reach Mr. Solomon's figure, the average monthly burden expenditure would be reduced, not increased as claimed by Mr. Kaiser.

(c) Mr. Solomon's estimated direct labor costs are predicated on the promise that Kaiser would achieve approximately an 80-percent learning curve from April 30, 1953, to completion. To complete the contract within Mr. Kaiser's estimate would require achieving in my opinion an unrealistic better than 70 percent learning curve.

10. Mr. Kaiser, on page 54, in column 3 of a schedule headed “Projection of cost C-119 contract” shows Mr. Solomon's estimate for “Clause 4, no fee items” as \$3,038,567 instead of the \$2,038,567 figure actually used by Mr. Solomon.

11. Mr. Kaiser states on page 58, paragraph 2 that “We never asked the Air Force to pay for vacations earned on automotive work; in fact, we ourselves proposed the vacation formula that was adopted.” He further states on page 71, paragraph (2): “The inference is that Mr. Solomon in the course of his audit of our vouchers discovered erroneous accounting treatment and corrected it by disallowance. On the contrary, the transfer of this amount from aircraft to automotive costs is the result of a formula we ourselves proposed to Mr. Solomon.” And he also states on page 72: “This (the vacation adjustment) was not a case where he (the resident auditor) brought the matter to our attention and caused us to make the adjustment.”

The facts are that the Air Force was asked to pay for vacations earned on automotive work and Mr. Solomon, the resident auditor, objected and disallowed the costs. As conclusive evidence of the resident auditor's actions in this matter attached hereto are the following:

(1) Interoffice correspondence dated December 28, 1951, from H. A. Koop, Kaiser's chief accountant, to C. M. Hollis, Kaiser's vice president (exhibit J), which states in the last paragraphs of pages 4 and 5 “\* \* \* on December 13, 1951, Mr. Solomon informed the writer of two additional items which require investigation and disposition as follows: (b) Objection was taken to our method of charging vacation payments for wage and salary employees. It is believed that this should be the subject of further discussion prior to resolving what action will be pursued in arriving at an equitable distribution of these charges.”

(2) Three audit instruction letters are attached (exhibits K, L, and M). They state clearly that the original policy of the contractor was to charge vacation pay to the department the employee was working at the time the vacation was paid. They also outline what steps were taken by the auditors, at the direction of the resident auditor, in order to remove automotive vacation pay from aircraft costs. In order to effect the necessary adjustments for incorrectly charged vacation pay, it was necessary to establish audit procedures to screen all wage and salary costs for the year 1951 and the first 6 months of 1952. This was accomplished through



the media of audit instruction letters. The formula continually referred to by Mr. Kaiser was just a short cut in avoiding considerable detail clerical audit work.

(3) Formal disallowance by the Air Force resident auditor and contracting officer of \$169,581.85 "to transfer, in part, vacation pay for 1951 charged directly to aircraft instead of automotive" (exhibit N, 4 pp.). Kaiser's acceptance of the disallowance is shown in exhibit N (sheet 4).

12. On page 61, Mr. Kaiser stresses the importance of getting the time sequence on the record. He states that their statement of accounting policies was presented to the Air Force on April 1, 1951, and that it took the Air Force almost 7 months to approve the system with only slight modification. He further states that they were considerably handicapped in their accounting procedures because of uncertainty about the Air Force views on certain details of the system.

The facts are—

(1) The corporation submitted their accounting policies manual to the Air Force on June 18, 1951—6 months, not 4 months, after the contract was let.

(2) By expediting the necessary detail analysis and system survey, the Air Force approved the manual, with recommended changes, on October 26, 1951 (exhibit O), within 4 months from the receipt date.

(3) Contractor personnel were instructed by Kaiser management to immediately comply with the manual—not wait for Air Force approval. The resident auditor knows of no handicap at any time in the accounting procedures of the Kaiser Motors Corp. due to lack of approval of the manual by the Air Force.

13. On page 63, Mr. Kaiser states that "We are glad to agree with the specific testimony of the Air Force resident auditor that its use has resulted in a situation where no costs not allocable to defense contracts have been reimbursed by the Air Force (tr., p. 319)."

The fact is that my statement was not about the manual in answer to Senator Bridges' question, "Have you by your auditing processes been able to be sure that no automotive costs were improperly allocated to the C-119 contract since you set up the audit residency at Willow Run?" I testified, "Under the selective audit procedure in effect, it is my opinion that no costs not allocable to defense contracts have been reimbursed."

14. On page 65, Mr. Kaiser states, "We are at a loss to understand how the Air Force resident determined disallowances during the first quarter of 1951 in the amount of \$406,007.62 \* \* \*"

The fact is that as recorded on testimony, page 312, I stated, "The difference between the contractor's booked costs and the Air Force audited costs under the C-119 program amounted to \$406,000." Submitted hereto is exhibit P supporting my statement. Mr. Kaiser's accounting staff can readily confirm the accuracy of the exhibit.

15. On page 65, Mr. Kaiser states, "We contend that there was no excessive idle time in the Willow Run plant during the period of time under review nor at the present time and we support that contention with the fact that no formal disallowance has ever been made for excessive idle time from the beginning of the contract through May 31, 1953."

The fact that no formal disallowance has been taken to the present time does not support Mr. Kaiser's contention that there was no excessive idle time. Exhibit Q attached hereto is evidence that formal action by the Air Force on this problem is under consideration.

16. On page 66, Mr. Kaiser made use of a joint audit report made in February 1952 to refute Mr. Solomon's testimony with respect to manual adjustment of clock cards.

The fact is that manual adjustments of clock cards was a serious deficiency during the year 1951.

An audit of aircraft hourly employees' payroll clock cards for the payroll week ending June 10, 1951, conducted by the resident auditor, revealed that 68 percent of the clock cards examined were manually adjusted. A joint audit by Kaiser and Air Force in November 1951 indicated that this unsatisfactory condition still existed. On January 18, 1952, as the problem of manually adjusted clock cards had not been corrected, the resident auditor advised the contractor that "Exception will be taken to payroll costs supported by manually adjusted clock cards."

The resident auditor's letter of January 18, 1952, with copies of all correspondence referred to therein are attached hereto (exhibit V, 1 to 6). The contractor took adequate steps to correct this problem immediately after receipt of Mr. Solomon's January 18, 1952, letter.

17. On page 73, in respect to duplicate charges, Mr. Kaiser states that "Both these items were disallowed at our request, so that we could reclassify and re-submit them as necessary. The regulations covering public vouchers prohibit the use of credits \* \* \*."

The facts are that—

- (1) There are no regulations prohibiting the use of credits on public vouchers.
- (2) The contractor first claimed reimbursement (and was actually reimbursed) for these costs as direct charges to the contract. During the later audit of overhead vouchers, the resident auditor discovered the costs had been again submitted for reimbursement, this time as overhead.

18. On page 74, Mr. Kaiser states that "This item of cost (E. Kaiser's letter to Senator Bridges) was never formally submitted to the Air Force for reimbursement."

The facts are that under the current audit program in force at Willow Run, all overhead costs are reviewed by Air Force auditors when they are recorded for reimbursement. The contractor recorded the costs of Senator Bridges' letter as an allocable overhead cost and would have recovered a portion of the cost through the distribution of overhead. However, as evidenced by exhibit R, the Air Force auditor objected to this treatment of the cost and refused to approve the cost for reimbursement. The contractor then attempted to obtain approval by the contracting officer on accounting policy letter No. 45 (exhibit S). The resident auditor's recommendation to the contracting officer to disapprove this cost is shown in exhibit T. The contracting officer refused to allow reimbursement (exhibit U).

19. On page 77, Mr. Kaiser states that the "burden adjustments due to shifting of vacation hours in burden bases, in the amount of \$350,281.29, is in dispute between Mr. Solomon and ourselves."

This is not the case. The amount of \$350,281.29 has been definitively disallowed by the resident auditor and he has been sustained in his disallowance by the contracting officer (exhibit W).

20. The items of nonallowable costs dealt with by Mr. Kaiser on page 77 were properly handled by the resident auditor in his testimony to the Senate committee. Exhibit X, suspended, disallowed, and nonallowable costs, clearly sets forth the nonallowable costs, properly segregated and identified. Note 1 to the schedule further clarifies the fact that the contractor does not seek reimbursement for these costs.

#### EXHIBIT A

##### INTEROFFICE CORRESPONDENCE

JANUARY 16, 1953.

To: J. F. Cocks.

From: E. R. Jones, general auditor.

Subject: Current audit review of November 1952 journal vouchers (partial).  
Plant or office: DD-11 balcony.

*JV 11-39—To record expense of open letter to Bridges.*—The above journal voucher charges \$4,745.47 to account 99-5607-951 and credits KF Sales Corp. current account 10904. The original payment was made by the sales corporation to William H. Weintraub & Co., Inc., on voucher No. 29800 dated November 28, 1952.

The USAF auditor assigned to current audit has objected to the account distribution assigned on the basis that the charge represents advertising expense and consequently is not allowable. It was further noted that the total advance was not supported as of this date (December 30, 1952). We will suspend the above amount from November costs and it is requested that you advise us of the final disposition of the item.

*JV 11-115—Transfer between service parts warehouse, etc.*—Attached hereto is schedule A which reflects the findings and recommendations resulting from a review of JV 11-115.

It is suggested that the recommended changes be effected in December costs.

*JV 11-141—Usage allowances.*—The question regarding distribution of charges on cars assigned to Walton Cloke has not as yet been resolved.

Three cars were assigned to W. Cloke during November and the usage allowance was charged to 99-957. We would appreciate an early decision on this matter.

A joint survey was made of courtesy garage records to compare the distribution of corporate cars as assigned with the tabulated listing, MT-21, which is used

by the cost department as a basis for distributing usage allowance. Discrepancies were noted as follows:

Car No.	As recorded, MT-21	Department 562 records
521-1207149.....	Chase.....	341-A.
522-1213380.....	562.....	E. F. Kalser.
533-1213658.....	417.....	411.
534-1212442.....	Richmond.....	Oakland.
534-1211152.....	Oakland.....	Richmond.

The above discrepancies are noted for your information should you wish to have the records adjusted.

*JV 11-155—To record the redistribution of tabulating department expense for month of November 1952.*—We note that Application P-5 (Reconciliation of Bank Accounts) was charged in the amount of \$3,531.52 to A/C 99-6803-952. It is recommended that distribution be made instead to A/C 99-6803-551, Treasury Department. If you concur with this recommendation, it is suggested that this adjustment be effected on a December journal entry as well as a similar adjustment for each of the months, July through October 1952.

*JV 11-158—To record the transfer of nonproduction material between byproducts, central stores, and various departments for month of November 1952.*—The following items of cost included on the above journal voucher are questioned:

1. Gasoline and oil withdrawn on six transfer orders for power trucks at KDX Building No. 39, in the amount of \$26.75, was charged to account No. 01-5804-181. Because the transfer orders specify that the truck is assigned to department 312, it is requested that the cost in question be reaccounted to 99-5804-399 in accordance with accounting instruction No. 35, page 3, paragraph IV-D.

2. Chevrolet parts being transferred from byproducts to service garage were accounted as follows:

DR 99-5804-312.....	\$175. 71
CR 01-5804-612.....	175. 71

We find that the material was purchased on P. O. 811901, Vincent's Chevrolet Co., Inc., at a cost of \$154.82 and charged to 01-5804-415. As far as can be determined, the transfer of the items (TO No. 132812) from experimental to byproducts was not recorded. In view of the above, it would appear that the transfer from byproducts to department 312 (TO No. 164433), referred to above, should be accounted as follows:

DR 99-5804-399.....	\$154. 82
CR 01-5804-415.....	154. 82

We cannot account for the difference between the amount recorded and the cost as indicated on the purchase order.

*JV 11-167—To record distribution of telephone and telegraph expense for month of November 1952.*—Journal voucher 10-194-13 (adjusting July costs) erroneously charged KF Richmond for Western Union and TWX expense in the amount of \$4,140.23. Credit for the above charge was extended to KF Richmond by subject journal voucher 11-167. However, it was noted that the credit issued was in the amount of \$4,130.23 with no accompanying explanation of the \$10 difference.

Further, it should be noted that because this adjustment was not recorded on a No. 194 series journal, it was consequently allocated on November percentages instead of the applicable July percentages. Your disposition of the two discrepancies will be appreciated.

*JV 11-187—To record the value of repair work performed by the retail service garage on corporate owned cars.*—It was determined that one radio part, No. 100,170 at \$28.93, was credited to account 99-5503-562. Because the USAF will not accept charges for radios or similar accessories on corporate owned cars, this amount will be suspended from November costs pending a procedure covering items of this nature.

*JV 11-192—To record transfer of nonproduction material from automotive central stores to aircraft central stores for November 1952.*—Transfer requisition No. 589

records the transfer of 55 gallons of No. 343564-16 Dado green paint at \$113.30 as follows:

DR 98-5806-299	-----	\$113.30
CR 19860	-----	113.30

In accordance with previous agreement the cost of such paint should have been charged to 99-398 at time of purchase. The above requisition should, therefore, have been handled as a no charge item. We will suspend the above amount in November costs pending your action thereon.

*JV 11-204—To record work order correction.*—The above journal voucher corrects the work order distribution of food consultant fees, in the amount of \$200 paid on voucher No. 166151. Voucher register corrections within the month supplemented by the subject JV indicates the final distribution of this expense to be A/C 99-5709-953.

As explained in our journal voucher review on October that this charge should have remained in A/C 99-5709-354 (refer to letter, dated Dec. 22, 1952, regarding JV No. 10-194-8). We have been advised by the cost department that the consultant's fees will be adjusted to department 354 in December costs.

*Outpatient billings for November.*—Billings for November were reviewed and discrepancies noted. The attached schedule B details these exceptions and recommendations for adjustment.

E. R. JONES.

#### EXHIBIT B

#### INTEROFFICE CORRESPONDENCE

DECEMBER 28, 1951.

To: Messrs. C. M. Hollis, R. J. Jespersen, R. C. Boland, W. M. Salcs.  
From: H. A. Koop, chief accountant.  
Plant or office: Willow Run, Mich.

#### 1. VENDORS' INVOICES AGAINST PURCHASE ORDERS COVERING TIME AND MATERIAL CHARGES

The accounts payable department have been withholding payment of invoices covering time and material charges for the reason that the invoices have not been audited by either the Kaiser-Frazer auditing department or USAF audit staff, as well as experiencing considerable delay in obtaining the approval of the production engineering department on these invoices. Numerous requests have been received from the subject vendors requesting reimbursement in order to meet payrolls and current expenses. In order to alleviate this condition and aid our vendors in meeting their obligations it was agreed that Kaiser Manufacturing Corp. would pay all invoices in accordance with the payment prescribed on our purchase order using the Nos. 2 and 3 copies of the invoice as support for our payment remitting 90 percent of the amount shown on the invoice.

Periodically the accounts payable department will be requested to prepare a list of all time and material invoices paid by Kaiser Manufacturing Corp. for which reimbursement has not been requested by the USAF because of the lack of proper documentation. This list is to show the date paid, the payment voucher number, vendor name, gross amount of invoice paid, the amount withheld by Kaiser Manufacturing Corp., and the net amount paid to the vendor, and will be submitted to the assistant controller who will take the necessary steps to secure the approval of the contracting officer for provisional payment pending the audit and production engineering department's approval as well as other necessary documentation.

As proper documentation is secured to support each invoice the accounts payable department will attach this documentation to the payment voucher copy ordinarily submitted in support of public vouchers. Upon full documentation of a completed payment voucher a credit memo will be issued to the vendor for the 10 percent withheld on the original payment and the payment voucher with the completed documentation along with the payment voucher for the 10 percent originally withheld will be transmitted to the public vouchering department for preparation of a public voucher which will cover the amount paid to the vendor supported by our credit memo as well as the amounts, if any, suspended by the USAF at the time provisional payment was made.

## 2. PUBLIC VOUCHERS SUBMITTED FOR PAYROLL DISTRIBUTION

In order to expedite reimbursement for direct charge and defense pool payrolls it was agreed that public vouchers would be submitted supported by a WT-7 tabulated listing which the cost department will have reviewed and indicated manual corrections thereto covering any errors noted in their review, along with a worksheet showing these adjustments and the manual corrections. A copy of this worksheet is submitted to the tabulating department which will be key-punched and incorporated into the labor distribution deck after which the WT-10 tabulated listing will be prepared and transmitted to the public vouchering department. Any differences between the WT-7 tabulated listing supporting the public voucher and the WT-10 will be submitted on a "resubmission public voucher" requesting additional amounts or giving credit for any excess amounts included in the original public voucher.

## 3. OVERHEAD

It was agreed that public vouchers would be submitted covering overhead in the following manner:

The overhead incurred through the 15th of the month will be submitted on public vouchers on the 20th of that month. On the 5th of the following month, the overhead incurred from the 16th through the end of the previous month will be submitted on public vouchers.

Public vouchers covering overhead submitted in this manner shall be supported by showing the following:

(a) Overhead recorded in the voucher register through the 15th of the month indicating the amount which is defense pool overhead (prefix 98) and the portion of allocable (prefix 99) determined to be allocable to defense pool as of the date of submission.

(b) Defense pool portion of allocable payroll (prefix 99) allocable to defense pool.

(c) All other overhead, direct charge and/or allocable determined to be allocable to the defense pool as of the date of submission. This will include, but shall not be limited to such items as depreciation, taxes, insurance, etc., which usually are entered into the records through the medium of journal vouchers.

Mr. Solomon agreed to accept public vouchers submitted in this manner although indicating that the public vouchers covering these transactions may not be approved in the amount as submitted, for the reason that his office may file a suspension notice for a withholding factor.

As soon as the books for that month are formally closed and the overhead for the defense pool ascertained, the public vouchering department will issue a public voucher for the total amount of overhead charged against the defense pool less the amount received as reimbursement against that month's overhead.

It is understood that all public vouchers submitted as referred to herein will be submitted by contract in order that proper segregation of costs may be made.

It was further agreed that a public voucher would be submitted on December 12th or 13th to cover overhead for the month of November in the manner prescribed above; however, in view of the fact that the November books would be closed by December 19, at which time the actual overhead for this month would be determinable, it was agreed to submit November on an actual basis rather than using the formula prescribed above.

## 4. ADJUSTED OVERHEAD FOR THE PERIOD JANUARY THROUGH AUGUST

Due to a misunderstanding, overhead for the month of August adjusted in accordance with the accepted new principle and basis, was presented on public vouchers prior to discussing and reviewing the work sheets with the resident auditor. It was agreed that under no circumstances would public vouchers be submitted for adjusted overhead for the months of January through August prior to completion of the review and adjustment of payroll distribution for the same period and then only after review and discussion with the resident auditor. Mr. Solomon indicated that action contrary to this agreed procedure would only result in his office suspending these charges which results in additional work for both his office and our personnel.

An estimated timing schedule is attached hereto indicating the date of completion for review and adjustment of prior month overhead as submitted as well as well as results of review of payroll distribution for the months of January, February, March, April, July, August, and September.

Every effort will be made to complete the review of payroll distribution and adjust the overhead for the period in question and secure the approval of the resident auditor in sufficient time to record the final adjusted entries in the 1951 accounting period. However, to insure that the year end closing reflects the major adjustments resulting from this review it was agreed that these adjustments would be placed on the books as soon as the review of each month is completed by the accounting department. Additional corrections, if any, resulting from the review of these adjustments with the resident auditor, will be recorded at the time of that review which we hope will occur prior to the final closing of the books.

#### 5. REVIEW OF PAYROLL DISTRIBUTION

Mr. Solomon stated that a representative of his office had reviewed the procedure being followed by our cost accounting department in reviewing and adjusting payroll distribution for the period January through April, and July, August, and September and offered the following comments in this connection:

(a) Adjustments were not being recorded for discrepancies wherein an incorrect department is charged which results in an error in allocation. It was pointed out that in several instances department 398 was charged whereas department 399 should have been charged and vice versa. Inasmuch as department 398 is allocated on floor space whereas department 399 is allocated on total direct charge man-hours, an error in allocation results.

It was agreed that the cost accounting department would make these corrections in their current review as well as again reviewing all weeks already completed and make the necessary adjustments for any errors in departments charged which results in an error in the allocation.

(b) Due to a misunderstanding, the auditor making the review for the USAF was informed that the listing of hours for which inadequate descriptions were shown on the crew sheets was to be discontinued. This misunderstanding had been corrected prior to this meeting and the cost accounting department is continuing to list these hours.

(c) Mr. Solomon pointed out that his office would be unable to accept payroll distribution review as being complete until such time as the salary payroll distribution cards were reviewed nor would he be able to accept the overhead application for these months for the same reason. It was agreed that this review is a necessary factor in making the proper determination of both payroll distribution and overhead application, therefore this review must be completed prior to discussing the labor distribution or overhead application for any given month.

(d) It was agreed that the accounting review of payroll distribution for the months of January, February, and March, would be made on the basis of the procedure prescribed in our timekeeping and payroll manual as accepted by the USAF and resident auditor. Discrepancies noted in the review of payroll distribution for this period will be reflected in accounting records as soon as a month is completed. However, no adjustments will be recorded for this period for overhead until such time as both factors have been discussed with the resident auditor. This is necessary for the reason that the treatment of payroll distribution for the months of January, February, and March, in accordance with the present timekeeping and payroll manual, may result in an inequity, therefore it was agreed that this period would be subject to further discussion and negotiation before recording any adjustments to overhead.

The foregoing represents the matters discussed and the decisions reached during the meeting on December 12, 1951. However, on December 13, 1951, Mr. Solomon informed the writer of two additional items which required investigation and disposition as follows:

(a) Mr. Solomon presented the question as to the proper distribution of overtime between aircraft and automotive operations. He indicated that a review of payroll distribution disclosed numerous instances wherein employees assigned to automotive departments throughout the week were reassigned to aircraft operations on Saturday which resulted in charging the aircraft program with the overtime for that day. It was explained to Mr. Solomon that our policy has always been that overtime premium hours follow the basic hours worked and are charged accordingly. It was further explained that since January 1, 1951, there have been very few instances that required overtime on automotive operations, whereas the urgency of the aircraft program required considerable overtime and because of the scarcity of and delay in securing additional qualified personnel for the aircraft program it was necessary to work automotive personnel on the aircraft program on an overtime basis in order to expedite this program.

In a further meeting with Messrs. Solomon, Jespersen, and Greenwald on December 27, 1951, it was agreed that we would present a statement of accounting policy to the contracting officer on the subject of distribution of overtime premium.

(b) Objection was taken to our method of charging vacation payments for wage and salary employees. It is believed that this should be the subject of further discussion prior to resolving what action will be pursued in arriving at an equitable distribution of these charges.

H. A. Koop.

EXHIBIT C

INTEROFFICE CORRESPONDENCE

APRIL 22, 1952.

To: Mr. J. L. Cook.

From: J. F. Greenwald, director of accounting systems and auditing.

Subject: Audit of 1951 overhead: Vacation-pay costs.

Plant or office: Willow Run.

AUDIT INSTRUCTION LETTER NO. 5

The accounting policy covering the distribution of vacation-pay costs for the calendar year 1951 provided that such costs would be absorbed as departmental overhead of the department on whose payroll the employee was carried at the time the vacation was paid. The distribution of costs was accordingly made to automotive and defense activities by direct charge and/or through allocation of the various departmental costs. This policy applied to both hourly and salary vacation payments.

In the case of salary employees, a common anniversary date of May 1 has been established, and the amount of vacation pay earned by all salaried employees is calculated according to that date. The corporate liability for salaried vacations as of May 1, 1951, was accrued to the employee during the preceding 12-month period but was not set up on the books. Actual vacation payments were made subsequent to May 1, 1951, and were included in departmental costs at the time of actual payment. In view of the foregoing, it is apparent that all salaried vacations were earned previous to May 1, 1951, and, since there was very little defense activity prior to that date, it is assumed that all salaried vacation payments during the calendar year 1951 are a legitimate automotive cost.

In the case of hourly workers, each employee has his own anniversary date from which earned vacations are calculated. After an employee reaches his anniversary date, each year, a corporate liability exists for amount of vacation earned by the employee. The employee may take his vacation at any time subsequent to his anniversary date provided it is taken within a 12-month succeeding period. The actual recording of departmental costs occurs at the time the vacation payment is made. From the foregoing it is evident that the distribution of cost according to the accounting policy outlined above has given no consideration to the actual time during which the vacation was earned.

An adjustment to vacation costs for the year 1951 must be made to correct this inequitable distribution factor.

Following is the audit procedure to be followed to effect the adjustment to the year 1951 overhead insofar as vacation-pay costs are concerned:

1. From payroll detail IBM files, reproduce all vacation payments made during the year 1951.
2. Prepare detail tabulation of vacation payments, both salary and hourly, by week, by department, and by contract charged.
3. Prepare summary tabulation of salary vacation payments, by month, by department, and by contract charged.
4. Prepare summary tabulation of hourly vacation payments, by month, by department and by contract charged.
5. Prepare workpapers for each month to recap total vacations paid; separate work papers for salary and hourly. These workpapers will be completed by transcribing departmental costs from tabulated lists referred to in item 3 and 4, above. At this point the workpapers will reflect the costs "as recorded." In preparing these workpapers departmentalization will be maintained only to the extent required for the various allocation code bases. Departments falling under a common allocation code may be combined.

6. From detail tabulated list referred to in item 2, above, prepare a workpaper listing the badge number of a representative group of hourly employees from the midweek payroll of June, July, August, September, October, November, and December. In the column headed "As recorded" post the number of months charged to each contract code. From the personnel history record of the selected employees establish the vacation anniversary date for each. Review each history record to determine the departments that each of the employees worked in each month of his vacation year. Convert the departments to contract codes. In the column headed "Should be" post the number of months to each contract code in accordance with the way each vacation was earned. To determine the adjustment factor for each month, divide the total months in contract code 98 in the "should be" column by the total months in contract code 98 in the "As recorded" column. This will establish the percentage of vacation costs that are allowable under defense contracts. In order to determine the adjustment factor for each month for code 99, perform the same steps as outlined above.

7. The adjustment factor developed in item 6, above, will be posted to the workpapers developed in item 5, above, and will constitute the calculation of costs under "should be" columns. For purposes of simplicity it is assumed that all hourly vacations paid prior to June 1, 1951, are a legitimate automotive cost.

8. From the columns headed "As recorded" deduct the columns headed "Should be" and calculate and post the differences in the columns headed "Adjustment".

9. Prepare recap of "Adjustment" amounts by month, reflecting detail debit and credit hours and amounts by department; separate recap for salary and hourly.

The controller and resident auditor, USAF, are requested to indicate their approval on the duplicate copy of this letter if they concur with the procedure outlined herein.

Approved:

J. F. GREENWALD.

Approved:

C. M. HOLLIS,  
Vice President and Controller.

Conformed copy:

S. C. SOLOMON,  
Resident Auditor, USAF.

JANUARY 12, 1953.

E. R. JONES,  
General Auditor, Kaiser-Frazer Corporation.

#### EXHIBIT D

#### INTEROFFICE CORRESPONDENCE

NOVEMBER 6, 1952.

To: John M. Gillette.

From: E. R. Jones, general auditor.

Subject: Audit of overhead costs: January-through-June-1952 vacation-pay costs.  
Plant or office: DD 11 Balcony.

#### AUDIT INSTRUCTION LETTER No. 2

The accounting policy covering the distribution of vacation-pay costs for the first 26 payroll weeks of 1952 (January 1 through June 22) provided that such costs would be absorbed as departmental overhead of the department on whose payroll the employee was carried at the time the vacation was paid. The distribution of costs was accordingly made to automotive and defense activities by direct charge and/or through the allocation of the various departmental costs. This policy applied to both hourly and salary vacation payments. Commencing with payroll week No. 27, all vacation payments were accounted as outlined in "Accounting Instruction No. 30," which reflects the current corporate accounting policy with regards to vacation payments.

The policy established in "Accounting Instruction No. 30" (Distribution of Vacation Payments) will be followed in the audit and reaccounting of vacation payments made during the period of this audit.

Salary employees have a common anniversary date of May 1 in regard to vacation payments and the amount of vacation pay earned. Vacation payments made to salary employees, other than those terminating their employment, in the months



January through April 1952 were earned during the period May 1, 1950, to May 1, 1951. As there was little defense activity during this period it is assumed that all salaried vacation payments made to these employees in the first 4 months of 1952 are legitimate automotive cost and shall be reaccounted accordingly.

However, in the case of salary employees separating from the employ of the company, it is recognized that vacation payments made in the first 4 months of 1952 will also include either the accrued earned vacation pay from May 1, 1951, or the date of hire (if later), to the date of termination. Therefore, the reaccounting of these vacations will be based upon the applicable departmental overhead accounting of the various departments in which the employee worked during the period the vacation was earned, as well as the policy stated in the preceding paragraph.

Hourly employees have no common anniversary date, as each employee has his own anniversary date based upon the date of hire and regulated by standard practice No. 33, the Wage and Salary Policy Manual, and the various union contracts. After an employee reaches his anniversary date, each year, a corporate liability exists for the amount of vacation earned by the employee. The employee may take his vacation at any time subsequent to his anniversary date provided it is taken within a 12-month succeeding period. From January 1, 1952, until June 22, 1952, vacation payments made to hourly employees, as with salary employees, were accounted in accordance with the overhead accounting of the department in which he was working at the time the vacation was paid.

Vacation-pay accounting, therefore, as made prior to June 22, 1952, disregards a consideration of where, departmentally, the vacation was earned, and accordingly reflects improper distribution between contracts of vacation costs as actually earned.

To adjust vacation costs for the first 6 months of the year 1952, the following audit procedures will be accomplished:

I. From the weekly tabulating labor runs (WR-7) record the badge number of each employee to whom a vacation payment was made, indicating the department charged, contract charged, number of hours and amount of money. Separate schedules will be compiled for each month and for hourly and salary employees separately.

II. From the personnel history card of each hourly employee ascertain and record the current vacation anniversary date. Using the anniversary date, review the employee's personnel history card for the departments of employment for the year preceding the anniversary date applicable to the current vacation payment. Record on the schedule the number of months, relative to the No. 12, that the employee worked in each department during this period by contracts 01, 98, or 99.

III. For the months of May and June from the personnel history card of each salaried employee using May 1, 1952, as the anniversary date, record on the schedule the number of months, relative to the No. 12, that the employee worked in each department during the preceding 12 months by contracts 01, 98, and 99.

IV. For the months January through April from the "Daily labor turnover reports" file list all salary separations by badge number and department by contract. From this listing indicate on the vacation payment schedules those employees who were terminated. The personnel history cards will then be reviewed for departments of employment from the date of separation back to May 1, 1951, and the allowable maximum of 1 day's vacation (8 hours) per month accounted, as outlined in paragraph 3, above. Hours in excess of this maximum will be considered as vacation earned between May 1, 1950, and May 1, 1951, and charged to the 01 contract.

V. The balance of salary vacations paid in the months January through April will be assumed to have been earned in the period May 1, 1950, to May 1, 1951, and will be charged to the 01 contract.

VI. Having indicated the number of months to be charged to each department and contract for each employee's vacation hours and money paid, calculate the recorded amounts in this ratio to reflect the correct vacation accounting. Total and cross-balance schedules.

VII. Summarized all schedules by month, grouping departments by allocation codes and maintaining contract identity. Net the "As recorded" credit with the "As corrected" debit to reflect the net vacation adjustment.

By copy of this letter, the controller and resident auditor, United States Air Force, are requested to indicate their approval on a duplicate copy, returning

same for filing in audit work papers, if they concur in the instructions, outlined above.

Approved.

E. R. JONES.

C. M. HOLLISS,  
*Vice President and Controller.*  
SIDNEY C. SOLOMON,  
*Resident Auditor, United States Air Force.*

Conformed copy.

E. R. JONES,  
*General Auditor, Kaiser-Frazer Corp.*

FEBRUARY 18, 1953.

EXHIBIT E

INTEROFFICE CORRESPONDENCE

DECEMBER 16, 1952.

To: J. M. Gillette.

From: E. R. Jones, general auditor.

Subject: Audit of overhead costs, January through June, 1952, vacation pay costs, week No. 27.

Plant or office: DD-11 balcony.

AUDIT INSTRUCTION LETTER NO. 12

This letter supplements audit instruction letter No. 2.

Commencing with payroll week No. 27, accounting instruction No. 30 (distribution of vacation payments), was placed into effect. This instruction outlines the current corporate accounting policy and method of computing the distribution of vacation payments. A preliminary review of the vacation payment accounting for this week revealed certain discrepancies which indicated that the new policy was not in full effect at the time. Vacation pay accounting, therefore, for week No. 27, disregards, in some instances, a consideration of where, departmentally, the vacation was earned, and accordingly reflects improper distribution between contracts of vacation costs as actually earned.

To adjust vacation costs for week No. 27, 1952, the audit procedures outlined in audit instruction letter No. 2 will be followed. The resultant adjustment will be included with the January through June 1952 vacation adjustment as a separate identifiable item and included in the recalculation of June expenses.

By copy of this letter, the controller and resident auditor, United States Air Force, are requested to indicate their approval on a duplicate copy, returning same for filing in audit workpapers, if they concur in the instructions, outlined herein.

E. R. JONES.

Approved:

C. M. HOLLISS,  
*Vice President and Controller.*  
SIDNEY C. SOLOMON,  
*Resident Auditor, USAF.*

Conformed copy:

E. R. JONES,  
*General Auditor, Kaiser-Frazer, Corp.*

FEBRUARY 18, 1953.

EXHIBIT F

NOTICE OF COSTS SUSPENDED AND/OR DISAPPROVED

To: Kaiser Manufacturing Corp.

Contract No.: AF 33 (038)-18481. Bureau Voucher No.: (See attached.)

Notice No.: S-581.

1. This notice constitutes advice of costs suspended and/or disapproved incident to the audit of the above referenced voucher.

2. Suspended costs, as referred to herein, are costs which, for the reasons shown below, appear questionable, but on which final determination has not been made. Disapproved costs, as referred to herein, are costs which, for the reasons shown below, have been determined by the undersigned to be unallowable.

3. If you do not concur in the action taken herein, with respect to cost items disapproved, a period of not to exceed 30 days from receipt of this notice by you will be allowed for the presentation of additional information or justification in support of such items. If additional information or justification is not received within the time prescribed, disapproval of the costs will be presumed to be concurred in by you and will become final and conclusive subject only to the express provisions of the contract relating to written appeal.

Date: May 26, 1952. Signature of auditor or post inspector: Sidney C. Solomon, Resident auditor, United States Air Force.

Date: May 26, 1952. Signature of (administrative) Contracting Officer, if applicable: Captain F. P. Bretney, United States Air Force, Contracting Officer.

Description of items and reasons for action	Amount of costs	
	Suspended	Disapproved
See attached schedule (attachment A).....	\$169,581.85	\$169,581.85

NOTE. Receipt of this notice should be acknowledged by the contractor or his authorized representative on one carbon copy hereof, in space provided below; and returned to the auditor or cost inspector.

Acknowledge receipt of this notice:

Date of receipt: May 29, 1952. Title of authorized official: Assistant Controller. Signature: R. J. JESPERSON.

#### ATTACHMENT A

To transfer, in part, vacation pay for 1951 charged direct to aircraft instead of automotive—per schedule prepared and concurred in by contractor:

Description of items and reasons for action	Amount of costs	
	Suspended	Disapproved
Public voucher No. S-101-DD 396 No. S-27.....	\$2,676.32	\$2,676.32
Public voucher No. S-156-DD 396 No. S-29.....	212.62	212.62
Public voucher No. S-165-DD 396 No. S-30.....	7,822.03	7,822.03
Public voucher No. S-225-DD 396 No. S-88.....	11,051.94	11,051.94
Public voucher No. S-229-DD 396 No. S-90.....	3,783.25	3,783.25
Public voucher No. S-226-DD 396 No. S-89.....	8,054.93	8,054.93
Public voucher No. S-230-DD 396 No. S-91.....	6,111.26	6,111.26
Public voucher No. S-258-DD 396 No. S-96.....	9,589.71	9,589.71
Public voucher No. S-259-DD 396 No. S-97.....	11,075.05	11,075.05
Public voucher No. S-319-DD 396 No. S-154.....	8,981.94	8,981.94
Public voucher No. S-320-DD 396 No. S-155.....	2,085.49	2,085.49
Public voucher No. S-406-DD 396 No. S-165.....	3,946.88	3,946.88
Public voucher No. S-416-DD 396 No. S-167.....	11,411.25	11,411.25
Public voucher No. S-448-DD 396 No. S-172.....	9,989.61	9,989.61
Public voucher No. S-539-DD 396 No. S-215.....	3,286.01	3,286.01
Public voucher No. S-540-DD 396 No. S-216.....	81.32	81.32
Public voucher No. S-541-DD 396 No. S-288.....	7,065.08	7,065.08
Public voucher No. S-577-DD 396 No. S-259.....	6,449.63	6,449.63
Public voucher No. S-610-DD 396 No. S-243.....	1,960.06	1,960.06
Public voucher No. S-705-DD 396 No. S-304.....	5,180.64	5,180.64
Public voucher No. S-704-DD 396 No. S-313.....	10,435.64	10,435.64
Public voucher No. S-732-DD 396 No. S-339.....	5,182.13	5,182.13
Public voucher No. S-746-DD 396 No. S-359.....	3,699.07	3,699.07
Public voucher No. S-773-DD 396 No. S-373.....	2,773.13	2,773.13
Public voucher No. S-784-DD 396 No. S-383.....	2,603.43	2,603.43
Public voucher No. S-818-DD 396 No. S-407.....	348.79	348.79
Public voucher No. S-804-DD 396 No. S-392.....	15,941.46	15,941.46
Public voucher No. S-819-DD 396 No. S-408.....	7,875.18	7,875.18
Total.....	169,581.85	169,581.85

(Schedule filed with Public Voucher No. S-819.)

AIRCRAFT PROCUREMENT

111

## SCHEDULE OF VACATION PAY COSTS FOR YEAR 1951

Distributed on a direct charge basis to defense contracts, as reflected on the vacation recapitulation schedule of the joint audit of payroll and application of overhead for 1951.

	As recorded	Should be recorded	Net over- charge to defense contracts
<b>Hourly:</b>			
January.....			
February.....			
March.....			
April.....			
May.....	\$20.65		\$20.65
June.....	212.62		212.62
July.....	14,550.70	\$404.51	14,146.19
August.....	23,106.00	963.52	22,142.48
September.....	21,911.80	560.94	21,350.86
October.....	18,405.22	2,849.13	15,556.09
November.....	20,709.20	1,412.36	19,296.84
December.....	26,905.06	2,741.63	24,163.43
<b>Total hourly.....</b>	<b>125,821.25</b>	<b>8,032.00</b>	<b>116,889.16</b>
<b>Salary:</b>			
January.....			
February.....			
March.....			
April.....	518.86		518.86
May.....	2,136.81		2,136.81
June.....	7,822.03		7,822.03
July.....	14,835.19		14,835.19
August.....	9,589.71		9,589.71
September.....	3,946.88		3,946.88
October.....	3,286.01		3,286.01
November.....	5,180.64		5,180.64
December.....	5,376.56		5,376.56
<b>Total salary.....</b>	<b>52,692.69</b>		<b>52,692.69</b>
<b>Total.....</b>	<b>178,513.94</b>	<b>8,032.00</b>	<b>169,581.85</b>

## INTEROFFICE CORRESPONDENCE

JUNE 18, 1952.

To: C. P. Randall (3).  
 From: E. R. Jones, general auditor.  
 Subject: USAF exception notice No. S-581.

## A. EXCEPTION TAKEN

Reference is made to the subject exception notice in the amount of \$169,581.85 which represents payroll costs transferred from suspended to disapproved for 1951 vacations charged direct to aircraft instead of automotive.

## B. DETAILS OF INVESTIGATION

Reference is made to a schedule prepared in conjunction with the reworking of the 1951 overhead, which details support for the above exception. The total amount of \$169,581.85 is the result of automotive employees with accumulated vacation time transferred to aircraft. At the time their vacations were taken the charge was made against the aircraft department in which the employee was working, rather than against the departments as accumulated.

## C. RECOMMENDATIONS

In view of the data under B above, it is recommended that the amount of \$169,581.85 be accepted as disapproved. Vacation charges will be recomputed by Mr. J. L. Cook, in conjunction with the review of 1951 overhead charges.

E. R. JONES.

AIRCRAFT PROCUREMENT

EXHIBIT G

Total contract costs as estimated by Air Force accountant—Contract No. AF33(038)–18481

	Total (169 ships)	Unit amount
Production materials.....	\$14,368,038	\$90,371
Direct labor.....	28,474,092	179,068
Factor burden.....	87,520,468	550,443
Engineering.....	4,695,942	29,534
Administrative.....	9,012,046	56,679
Subcontracts.....	36,187,711	227,596
Production estimated costs, airplanes.....	180,260,097	1,133,711
Special tooling.....	19,353,892	121,723
Plant rearrangement.....	2,400,333	15,096
Portable tools.....	1,793,931	11,283
Subtotal.....	23,548,156	148,102
Contract clause 4 (no-fee items).....	2,038,567	12,821
Subtotal.....	205,846,820	1,294,634
Fixed fee.....	7,076,521	44,506
Total estimated costs (excluding spares).....	212,923,341	1,339,140
Spares cost and fixed fee.....	10,070,784	
Total estimated costs to the Air Force.....	222,994,125	

EXHIBIT H

Incurred costs and fixed fee on C-119F airplanes, period Dec. 20, 1951, to Apr. 30, 1953--Contract No. AF33(038)--18481

	Total amount	Unit amount based on 71.4 ships <sup>1</sup>
Direct labor hours.....	8,409,287	117,777
Direct labor dollars.....	\$17,010,456	\$238,242
Overhead <sup>2</sup> .....	50,950,430	713,591
Material.....	6,742,737	94,436
Total.....	74,703,623	1,046,269
Subcontracting.....	32,991,990	462,073
Engineering and experimental.....	0	0
Tooling <sup>3</sup> .....	13,344,506	186,898
Preproduction <sup>4</sup> .....	21,269,293	297,889
Total.....	34,613,799	484,787
Administrative and home office.....	4,882,001	68,375
Fixed fee <sup>5</sup> .....	3,171,645	44,421
Total cost at KNC to Air Force <sup>6</sup> .....	150,363,058	2,105,025
Fairchild cost under technical assistance agreement (amount supplied by H. M. Devlin).....	3,708,468	51,930
Total cost to Air Force <sup>7</sup> .....	154,071,526	2,157,864

<sup>1</sup> The figures of 71.4 for equivalent ships completed does not include an evaluation of the following costs: (a) Subcontractors' costs representing on-site subassemblies which have not been released to the production line. (b) Subcontractors' costs representing subassemblies and in-process work still in the subcontractors' plants. (c) Productive material released to the production line upon which no productive labor had been incurred.

Within the time limitations imposed it has not been possible for either the contractor or the auditor to evaluate these costs in the computation of equivalent airframes completed.

<sup>2</sup> Includes fixed costs as follows:  
Depreciation and amortization..... \$916,073.32  
Taxes and insurance..... 622,041.97  
Total..... 1,538,115.29

<sup>3</sup> Includes \$1,563,043.49 cost of completed tools purchased for Fairchild Aircraft Division, Chicago, Ill.  
<sup>4</sup> Includes termination costs applicable to terminations of tooling ordered for Fairchild Aircraft Division, Chicago, Ill. Total termination costs on Fairchild tooling amounted to \$569,301.06.

<sup>5</sup> Fee computation (in accordance with Mr. Devlin's instructions): Equivalent airplanes, 71.4, divided by total airplanes, 159, equals 44.906 percent. 44.906 percent times \$7,062,854 equals \$3,171,645.22. Does not include evaluation of portion of additional fee on engineering changes covered by contract change notices Nos. 10 and 12.

<sup>6</sup> The total costs and fee of \$150,363,058 shown above does not include the cost of major assemblies, sub-assemblies, and primary parts supplied by Fairchild Aircraft Division under a technical assistance agreement. It is estimated that the initial 14 ship sets of components and priming parts reduced the Willow Run on-site task by 4.57 equivalent airplanes, while the additional 16 ship sets of priming parts reduced the Willow Run on-site task by 3.63 equivalent airplanes, or a total of 8.25 equivalent ships for the 30 ship sets of components and priming parts. The evaluation of the equivalent ships supplied by Fairchild is applicable to the equivalent ship completion shown above.

<sup>7</sup> It will be necessary to further consider the effect of qualifications 6 and 1 above on the average units cost to the Government of \$2,157,864.

EXHIBIT I

TRANSCRIPT OF PROCEEDINGS BEFORE THE AIRCRAFT PROCUREMENT SUBCOMMITTEE No. 1 COMMITTEE ON ARMED SERVICES UNITED STATES SENATE

(Excerpt, p. 338)

Senator FLANDERS. May I ask a question, Mr. Chairman?

The CHAIRMAN. Certainly, Senator Flanders.

Senator FLANDERS. This computation does include costs of special tooling and nonrecurring expenses so that I presume the Kaiser-Frazer Co. would feel it is unfair to divide that total with its nonrecurring expenses into the current production?

Mr. SOLOMON. That is right, sir.

Senator FLANDERS. Or what has been produced to date.

Mr. SOLOMON. That is right, sir.

Senator FLANDERS. I think we have to keep that in mind in all fairness to a company whose records are not particularly palatable.

EXHIBIT J

(See exhibit B)

EXHIBIT K

(See exhibit C)

EXHIBIT L

(See exhibit D)

EXHIBIT M

(See exhibit E)

EXHIBIT N

(See exhibit F)

EXHIBIT O

CERKC, October 26, 1951.

Subject: Approval of accounting policies contract No. AF-33(038)-18481.  
KAISER MANUFACTURING CORP.,  
Willow Run, Mich.

(Attention: Mr. C. M. Hollis, vice president-controller.)

DEAR MR. HOLLIS: The statement of accounting policies of Kaiser Manufacturing Corp. as submitted under the provisions of the subject contract is hereby approved subject to the conditions outlined below.

Manual entitled "Accounting Policies Prepared by Accounting Systems, File No. 1031," submitted on June 18, is approved subject to the following:

Deletion of paragraph 5, page 12, and in place thereof the substitution of letter dated September 5 from the undersigned concerning reimbursement of travel expenses.

Modification of paragraph 6c as follows:

"Unclaimed wages procedure should be revised to provide for segregation of unclaimed wages applicable to defense contracts. A procedure for crediting unclaimed wages applicable to defense contracts will be determined after clarification of the rights of the State of Michigan under the escheats statute."

Deletion of paragraph 7a.

The manual entitled "Application of Overhead, Kaiser-Frazer Corp., and Subsidiaries, Willow Run, effective April 1, 1951," as amended, together with manual entitled "Application of Overhead, Kaiser-Frazer Corp., Engine Division, Detroit and Dowagiac Plants, Effective April 1, 1951," as amended, supplemented by sections 2 and 3 of the Time and Payroll Manual dated October 1, 1951, are approved subject to the changes in account code classifications noted below:

"Dept. 314 Central Stores: General Stores operations—general allocable.  
321 By-Products Disposal: Entire department general allocable.  
361 Industrial Engineering: General allocable, except Time Study operations.  
412 Flight Test: Mechanics' servicing of corporation aircraft home office general allocable.  
416 Metallurgy: Entire department general allocable.  
417 Specifications and Records: Entire department general allocable.  
501 Accounting Systems and Auditing: General allocable except auditing of outside vendors and accounting procedures operations.  
531 Cost Accounting: Entire department general allocable.  
532 Accounts Payable: Entire department general allocable.  
551 Treasury: General allocable except R. D. R. and overriding discount operations.

AIRCRAFT PROCUREMENT

- 561 *Administrative*: Entire department home office general allocable except salary of H. V. Lindbergh. (C119 Supply Contract)  
 901 *Administrative—Eastern and Mid-Western Operations*: Department deleted.  
 911 *Administrative—West Coast Operations*: Department deleted.  
 956 *Air Transportation*: Department deleted.  
 957 *Washington Office*: Subject to approval of Administrative Contracting Officer."

Changes in basis of allocation as noted below:

"*Electric Power Costs*: To be distributed on basis of machine power demand load analysis insofar as practicable. Undistributed balance to be considered as general allocable cost to be distributed on basis of floor space.

"*Plant Occupancy Costs—Detroit Plant*: To be distributed on basis of floor space occupied.

"*Series 500 Departments*.—Allocation basis for distribution of general allocable costs in these departments to include allowance for activities in parts and service divisions."

The above approval is restricted to the policies covered thereby and does not include approval of subjects not mentioned, i. e., salary and wage policies.

Your attention is directed to the requirement that no changes are to be made in the subject accounting policies without the prior written approval of the contracting officer.

Your attention is also directed to the actual application of the policies enumerated which shows that a review of the accounting operations indicates the existence of an unsatisfactory condition at the Willow Run plant wherein the actual recording and distribution of costs are not in accordance with the contractor's stated accounting policies. Further, the acceptance of cost submissions by the contractor on the basis of accounting policies here reviewed is conditioned upon adherence to these policies and appropriate review of procedures by contractor's personnel, i. e., the acceptance of the salary distribution card as a basis for determination of direct changes to automotive and defense projects is predicated on the understanding that the contractor will provide positive control. Request advice as to the corrective action being taken to implement the above.

Sincerely,

F. P. BRETNEY,  
 Captain, USAF, Contracting Officer.

# EXHIBIT P

DETAIL ON RECORDED COSTS BEFORE AUDIT AND AFTER AUDIT, PERIOD JAN. 1 TO MAR. 31, 1951

Contract No. AF-33(038)-18481 and contract No. AF-33(038)-18485

	Actual recorded costs		Difference <sup>1</sup>
	Before audit	After audit	
Supply contract, AF-33(038)-18481:			
Direct charge overhead.....	\$259,531.01	\$256,215.53	(\$3,315.48)
Allocated overhead.....	186,754.70	302,023.64	115,268.94
Subtotal, overhead costs.....	446,285.71	558,239.17	111,953.46
Direct costs.....	0	183,078.89	183,078.89
Subtotal, supply contract.....	446,285.71	741,318.06	295,032.35
Facilities contract, AF-33(038)-18485:			
Direct charge overhead.....	152,693.09	0	(152,693.09)
Allocated overhead.....	60,525.29	0	(60,525.29)
Subtotal, overhead costs.....	213,218.38	0	(213,218.38)
Direct costs.....	495,274.32	7,452.73	(487,821.59)
Subtotal, facilities contract.....	708,492.70	7,452.73	(701,039.97)
Total, supply and facilities contract.....	1,154,778.41	748,770.79	(406,007.62)

<sup>1</sup> Parentheses denote credit.



EXHIBIT Q

MARCH 27, 1953.

Subject: Utilization of manpower.  
From: CERKC.  
To: Resident auditor, AFAUDMC-ID-KW.

COMMENT NO. 1

1. Reference is made to your DD-96, same subject, dated February 20, 1953, requesting written notification of the action contemplated by the contracting officer on this matter.

2. Please be advised that the ramifications to this problem are too extensive to answer by letter; however, the contracting officer will gladly discuss this matter with the addressee at the earliest convenient date.

MEYER J. STOUN,  
*Contracting Officer.*

EXHIBIT R

(See exhibit A)

EXHIBIT T

FEBRUARY 27, 1953.

Subject: Expenses—Open letter to Senator Bridges.  
From: Resident auditor.  
To: Administrative contracting officer.

COMMENT NO. 1

The subject expense was incurred by the Kaiser-Frazer Corp., through Wm. H. Weintraub & Co., Inc., advertising agency. Inasmuch as the United States Government and the Kaiser-Frazer Corp. have conflicting interests in this matter it is felt by this office that the expense should be considered an automotive expense.

For the Auditor General:

SIDNEY C. SOLOMON,  
*Resident Auditor, USAF.*

EXHIBIT U

MARCH 25, 1953.

Subject: Advertising expense—Open letter to Senator Bridges.  
KAISER MANUFACTURING CORP.,  
*Willow Run, Mich.*

(Through: Mr. S. F. Patyrak, Defense Contracts Administrator.)

(Attention: Mr. J. F. Coeks, Jr., assistant controller.)

GENTLEMEN: This acknowledges receipt of your letter, dated February 19, 1953, in connection with the above subject.

Advertising expense, amounting to \$4,864.65, for the open letter to Senator Bridges is considered to be advertising applicable to a controversial matter between the corporation and a member of the United States Senate. Advertising costs for other than "Help wanted" and advertisements in trade and technical journals is not a reimbursable cost in accordance with A. S. P. R. XV and the Accounting Manual.

This decision resolves item 13 in Mr. S. A. Girard's letter, "Unresolved Items" to the undersigned contracting officer dated March 4, 1953.

Very truly yours,

MEYER J. STOUN,  
*Contracting Officer.*

EXHIBIT V-1

DEPARTMENT OF THE AIR FORCE,  
COMPTROLLER, AUDITOR GENERAL,  
*January 18, 1952.*

Subject: Manual adjustment of clock cards.  
To: Kaiser Manufacturing Corp., Willow Run, Mich.  
Attention: C. M. Hollis.

Reference the following communications in which the resident auditor has gone on record bringing the contractor's attention to the above subject:

1. Resident auditor's letter of July 2, 1951, to the AF plant representative, subject, Conditions Causing Excessive Costs, a copy of which was forwarded to the Kaiser-Frazer Corp. in the AF plant representative's letter of July 5, 1951, to Mr. S. F. Patyrak.
2. Mr. S. F. Patyrak's letter of July 6, 1951, to the AF plant representative, subject, Conditions Causing Excessive Costs.
3. Mr. S. A. Girard's letter of July 6, 1951, to the AF plant representative.
4. Mr. John Tacke's letter of July 9, 1951, to all manufacturing supervision, subject, Violation of Shop Rules.
5. Letter of November 7, 1951, to Mr. W. W. Monahan, written jointly by Mr. S. C. Solomon and Mr. J. F. Greenwald, subject, Clock Card Irregularities.
6. Mr. W. W. Monahan's letter of November 12, 1951, to all employees, subject, Clock Cards.

Survey of plant activity discloses that numerous employees are not properly ringing in and out on their timecards, but rather having them manually adjusted. Since this condition has been repeatedly brought to the attention of the contractor, the resident auditor must at this time take the following position: Exception will be taken to payroll costs supported by manually adjusted clock cards.

SIDNEY C. SOLOMON,  
*Resident Auditor.*

EXHIBIT V-2

DISTRICT, KAISER-FRAZER CORP.,  
*Willow Run, Mich., July 2, 1951.*

Subject: Conditions causing excessive costs  
To: AF plant representative, Central Air Procurement District,  
Kaiser-Frazer Corp., Willow Run, Mich.

1. A system survey in process by the resident auditor, Auditor General, USAF, at Kaiser-Frazer Corp., Willow Run, Mich., and the current audit of costs submitted for reimbursement by Kaiser-Frazer Corp. under prime contracts AF 33 (038)-18481 and AF 33 (038)-18485 discloses unfavorable conditions that, in the opinion of the resident auditor, USAF, result in excessive costs to the Government.
2. Unfavorable conditions are listed, in part, as follows:
  - (a) Factory employees tamper with time clocks and time clocks in many instances record from 1 to 2 hours later than the actual time.
  - (b) Factory employees damage clocks intentionally. In excess of 20 percent of the 130 clocks are continually in process of repair. On June 30, 1951, there were 24 clocks damaged.
  - (c) Employees avoid plant protection guards by climbing the fence.
  - (d) Factory employees on the first shift stop working approximately 30 minutes before the shift ends and the time to punch their timecards.
  - (e) Clock cards show many erasures, changes, and omissions of clock-time stamp. In correction of omission of clock-time stamp, in many instances the time is entered in pencil without authorized approval evidence by initials or signature of authorized supervisory personnel.
  - (f) The contractor does not make attendance floor checks.
  - (g) Plant protection guards are not stationed at the clock stands to prevent employees from clocking more than one clock card.
  - (h) Employees cannot be readily identified as badges are not properly worn.
3. The above conditions are submitted for the AF plant representative's information and attention, in accordance with AFR 175-3.

SIDNEY C. SOLOMON,  
*Resident Auditor.*

EXHIBIT V-3

JULY 6, 1951.

Subject: Conditions causing excessive costs Ulrey/ej/8414.

To: AF plant representative, central air procurement district, Kaiser-Frazer Corp., Willow Run, Mich.

This will acknowledge receipt of your letter dated July 5, 1951, to which you have attached a copy of a letter from Mr. S. C. Solomon, resident auditor, dated July 2, 1951.

(1) With reference to paragraph 2 (a), (b), and (e) of Mr. Solomon's letter, we would like to discuss these matters as one related problem. It is the tampering with time clocks and its resultant damage, as mentioned in (a) and (b), which causes the majority of the errors in the clock cards mentioned in (e). In order to properly account for an employee's time, these errors must be manually corrected by the timekeepers, which corrections they have always been authorized to make. Timekeepers will be instructed to do their work legibly and more neatly, and to initial changes as they make them. In addition to the above, all time clocks will be tested prior to check-out time and any that have been thrown out of order will be made inoperative and the employees routed past a functioning time clock. Plant protection officers will be on hand to assist in rerouting the flow of employees.

(2) With reference to paragraph 2 (c), which is the matter of installation of new fencing and the repair of old fencing, this subject was discussed as a matter of general plant security with the Air Force personnel early this spring. This item of fencing was submitted in the appendix to the facilities contract on June 29, 1951, for consideration by the Air Force and authorization for expenditure of funds. An early approval of this item will be appreciated.

With respect to repair of old fencing, we wish to inform you that we are immediately undertaking repairs to existing fencing as may be necessary.

(3) With reference to paragraph 2 (d), the factory management will insist that supervision keep all employees on their jobs until quitting time. (See attached memorandum from the works manager to supervision.)

(4) With reference to paragraph 2 (f), our present procedure is that the timekeepers, observe the ringing of clock cards, both "in" and "out," at the clock stations, and receive, each day, a report from each foreman certifying the number of hours that the employee worked and the jobs on which he worked. The hours reported by the foreman are verified to the elapsed time recorded on the clock card.

We have felt that this system is adequate; however, since you apparently feel that attendance floor checks on the part of the timekeepers are necessary, we will study this matter and will be prepared to make a recommendation within 2 weeks.

(5) With reference to paragraph 2 (g), plant protection officers will be stationed at the clock stations from 1 hour before quitting time to one-half hour after quitting time on all shifts and will be instructed to make every effort to stop violations of proper procedure.

(6) With reference to paragraph 2 (h), the corporation is currently in the process of securing new and larger picture badges which will be equipped with a clasp in order that they may be properly worn. Plant protection has been instructed that, when the new badge system is installed, all employees must display their badges properly or will be refused admittance to the plant; further, that badges must be properly displayed at all times when employees are within the plant.

(7) With reference to your suggestion that patrolmen be rotated, the following is the procedure currently in use by plant protection: Each plant guard is assigned to a new post each day when reporting for work. During the day, plant guards stationed on the gates alternate with those walking beats within the building. It is our feeling that this affords the maximum amount of rotation possible without the necessity of employing extra guards.

The Kaiser-Frazer Corp. shares equally the interest of the Air Force in adopting any policies or procedures which will keep the cost of production of aircraft at a minimum. We hope that the measures adopted, as outlined above, will satisfactorily answer the questions raised in your letter of June 5, 1951.

Sincerely yours,

KAISER-FRAZER CORP.,  
S. F. PATYRAK,  
Contracts Administrator.

EXHIBIT V-4

JULY 6, 1951.

Subject: Kaiser Manufacturing Corp. contracts Nos. AF 33(038)-18481 and AF 33(038)-18485; request for increase in overtime authorization.  
To: AF Plant Representative, Kaiser-Frazer Corp., Willow Run, Mich.  
Reference: (a) Letter dated July 5, 1951, to Hq. AMC; (b) letter dated July 2, 1951, from resident auditor.

Confirming discussions of July 5 between AF personnel, represented by Major Ulrey, Lieutenant Westlund and Lieutenant Smith, and K-F personnel represented by Mr. S. A. Girard, John Tacke, Harvey Smith, S. H. Hailey, and S. F. Patyrak, and supplementing referenced letter of July 5, we wish to inform you that no double premium time is being charged to subject contracts. It is the K-F policy that neither the Willow Run plant personnel nor the tooling vendor personnel working under subject contracts are to be paid for double time unless specifically approved by the undersigned and, in that event, prior approval will be requested from the AF contracting officer. In the event a tooling vendor, subcontractor, or K-F personnel should be working overtime so that such overtime be charged on a double-time basis without specific approval, K-F accounting and audit section have been instructed to exclude such double-time costs so that all requested overtime will be, and is being, charged on a time and one-half basis to subject contracts.

With reference to the necessity of overtime on subject contracts, we wish to inform you that the schedules as set forth in the letter contracts necessitate overtime operation in certain phases of the program. As you know, we have prepared an index production schedule which has been reviewed by AF personnel at AMC Wright Field and at Willow Run and by Fairchild personnel, and an analysis of this index schedule discloses that the tooling program must be expedited with maximum effort. Because of the nature of accelerated tooling programs, which require maximum effort in shortest possible time, it always has been necessary to resort to overtime operation in order to effect the shortest delivery, with a lowering of overall costs in the final analysis. For example, 1 month's fixed factory overhead while waiting for delivery of tools would more than pay for all of the premium overtime paid in fabrication of tooling during that month. The undersigned reiterates and certifies that overtime is essential and necessary in order to meet production schedules as stated in subject letter contract No. AF 33(038)-18481.

In regard to reference (b), wherein the resident auditor informs the contractor with regard to discrepancies in time cards and time clocks, the attached memorandum is being forwarded for your information. It is to be noted that the contractor is taking immediate positive steps to correct all unfavorable conditions referred to in the letter of July 2.

I trust this information is satisfactory and complies with your request. In the event you should desire additional information please do not hesitate to telephone.

An expeditious handling and processing of letter of July 5, reference (a) will be appreciated.

S. A. GIRARD,  
Assistant General Manager.

EXHIBIT V-5

JULY 9, 1951.

To: All manufacturing supervision.  
From: John Tacke, Operations manager.  
Subject: Violations of shop rules.  
Plant or office: Willow Run.

In the last 2 or 3 months, we have been going through a rearrangement program of plant facilities and rescheduling of automotive production. During this period we have had rearrangements of different departments and have transferred a good many employees to other departments. Because of this, some of our employees have become lax in observing the following shop rules:

- Quitting early.
- Lining up at the clock stations before quitting time.
- Jumping the fences.
- Ringling other employees' clock cards.
- Tampering with the time clocks.

All supervisors are instructed to initiate the following procedures in correcting the above abuses:

- (1) Concerning quitting work early, lining up at the clock stations before quitting time, and jumping the fences:

If a foreman has all of his employees so concentrated that he can see their individual stations, he is to instruct his employees to remain at their work station until the 5-minute whistle blows. An employee on relief can be instructed to return to his work station before the 5-minute whistle. An employee who fails to observe these instructions is to be warned with a written reprimand. A second violation will call for a 3-day disciplinary time off; a third violation, 1 week disciplinary time off; a fourth violation, discharge.

The foreman whose employees are distributed about the plant to the extent that he cannot visually supervise their actions, is to inspect his assigned clock station at least 3 times weekly on varying days prior to the 5-minute whistle. Any of his employees found in the vicinity of that clock station, or away from their assigned work area, are to be given disciplinary action as in the preceding paragraph.

(2) Concerning ringing other employees' clock cards: First offense, 2 weeks disciplinary time off; second offense, discharge.

(3) Concerning tampering with the time clocks: First offense, 3 days disciplinary time off; second offense, 2 weeks disciplinary time off; third offense, discharge.

#### EXHIBIT V-6

#### INTEROFFICE CORRESPONDENCE

NOVEMBER 7, 1951.

To: Mr. W. W. Monahan.

From: J. F. Greenwald, Director of Accounting System and Auditing; S. C. Solomon, Resident Auditor, USAF.

Subject: Clock card irregularities.

Plant or office: Willow Run.

#### SCHEDULE A

During a recent survey of payroll-time distribution conducted jointly by representatives of the auditor general, USAF and Kaiser-Frazer auditing division, certain irregularities relative to the clocking of employees in and out of the plant were noted. These irregularities appeared to deviate from normal business procedures to the extent that it was considered necessary to apprise management of the facts in order that corrective action could be taken. The scope of our audit was limited to a review of time cards for payroll No. 43 and No. 44 for weeks ended October 22 and 28, respectively, and disclosed irregularities applicable to the following factors:

1. Time clock damage and clocking in and/or out at other than assigned stations.
2. Failure of employees to ring time cards.
3. Time card irregularities, bargaining committee.

#### 1. Time clock damage and clocking in and/or out at other than assigned stations

From the review of more than 10,000 time cards for each week, it was determined that time card exceptions of this nature were reduced to 5 offenders who were later established to be union stewards on the third shift. A summary of the registration of incorrect time for both weeks for the five employees is as follows:

Badge No. 13172: Paid for 8 days, 10 incorrect time rings.

Badge No. 15934: Paid for 10 days, 8 incorrect time rings.

Badge No. 12138: Paid for 10 days, 3 incorrect time rings.

Badge No. 13896: Paid for 8 days, 12 incorrect time rings.

Badge No. 16334: Paid for 5 days, 11 incorrect time rings. (Six time rings while on leave of absence.)

Because of excessive clock damage, clock station No. 8, which is an unattended station during the third shift, was equipped with a different colored ribbon in order to reveal the personnel utilizing these clocks, forcing incorrect registration of time and possibly leaving the plant by scaling tiered drums piled by the south yard fence or other irregular means of exit. It appeared that a consistent pattern was followed by groups of these union stewards inasmuch as "out" rings were at identical times and in all instances were later than the scheduled ring-out time for the shift. Upon repair of clocks in station No. 8, it was evident from the different colored clock rings that these employees moved to other clock stations to clock out. It was noted that clock repair reports for other stations indicating hours punched late, punching Tuesday instead of Thursday, etc., coincided with the clock exit rings of the involved employees. In addition in certain instances the

clock cards were folded at the bottom for the apparent purpose of clocking for more than 1 day at the same time. It appeared that clock damage for the 2 weeks reviewed could be attributed to these employees. It also appears that unauthorized exits from the plant and/or the ringing of one or more of other employee's clock cards is attributed in part to these employees.

A subsequent review of the clock card rack to which these employees had been assigned disclosed that 1 of the 5 timecards only was correctly inserted in the rack whereas the other 4 cards were missing.

All of the above irregularities are in violation of the union contract rules.

*2. Failure of employees to ring timecards*

Numerous employees, both salaried and hourly, are not punching in and out on numerous occasions. It was established that in some instances employees that are tardy are failing to ring in their clock cards anticipating that supervision and/or foremen will approve the timecards from the start of the shift, thus eliminating any penalty of pay. It appeared that in most cases, automatic approval was granted by the supervisors in the instances of late arrival and/or early departure.

*3. Timecard irregularities, bargaining committee*

The clock card review revealed that certain members of the bargaining committee and certain regional stewards are not clocking in and out each day. Timecards are clocked in only on certain days and clocked out only for other days. For the cases reviewed, the timecards for the personnel involved were all approved for in excess of 60 hours straight time plus premium by the labor relations department. It is our understanding that a letter has recently been issued informing these employees of the necessity for ringing timecards in accordance with payroll procedures in order to be correctly paid for hours worked.

The above facts have been generally known to representatives of the auditor general, USAF, and have been partially responsible for the suspension of 10 percent of aircraft payrolls and 50 percent of vouchered overhead costs presented by the corporation for reimbursement. Therefore, it is imperative that prompt corrective action be taken.

This report has intentionally been simplified and condensed in order to present the pertinent facts only. More detailed information and actual clock cards have been reviewed with Messrs. Banks, Eastman, and Jacobs.

We would appreciate advice from you in writing as soon as possible as to the action to be taken.

J. F. GREENWALD,  
*Director of Accounting Systems and Auditing.*  
S. C. SOLOMON,  
*Resident Auditor, USAF.*

EXHIBIT W

APRIL 10, 1953.

Subject: Contract AF 33(038)-18481. Notice of costs suspended and/or disapproved. S-756, Bureau voucher S-1662. Dated December 19, 1952.

From: Kaiser Manufacturing Corp., Willow Run, Mich.

Through: Mr. S. F. Patyrak, defense contracts administrator.

To: Mr. C. M. Hollis, vice president-controller.

GENTLEMEN: With reference to your letter dated January 7, 1953, above subject, reprinted below is a reply received from the resident auditor, USAF, on March 30, 1953, in connection with the disapproval of vacation hours:

"STATEMENT OF THE POSITION TAKEN BY THE AUDITOR GENERAL WITH RESPECT TO THE CONTRACTOR'S ATTEMPT TO EXCLUDE VACATION HOURS FROM THE OVERHEAD BASE

"The Auditor General takes the position that the contractor must maintain consistency in the application of formally approved accounting policy where it encompasses fundamental principles upon which the allocation of overhead is based. Being fully cognizant of the financial position of the prime contractor, and realizing that during the early stages of the performance of the contract there would be little or no direct production labor, the Air Force accepted as more equitable an overhead base which included all types of direct charge man-hours.

This, in effect, was a concession to the contractor's financial position and no doubt resulted in the allocation of more overhead to defense work than would otherwise have been the case. In light of this, the contractor's repeated attempts to change segments of the accepted overhead base whenever such a change would benefit them financially is not equitable to the Government.

"It is our contention that: (1) The policy of including vacation hours in the overhead base was formally approved by the Air Force as one of the basic principles upon which the allocation of overhead is based; and (2) the Air Force has formally objected to the contractor's attempt to change this policy.

"We present the following facts in support of our first contention:

"The original manual entitled 'Application of Overhead,' issued October 1, 1951, effective April 1, 1951, submitted to the Air Force by the contractor as an integral part of the contractor's statement of accounting policy, defined the term 'direct-charge man-hours' as follows:

"This term is used to identify man-hours which are identified and charged at source to either automotive or defense operations by contract."

"No indication was given that such hours were intended to be hours actually worked, but only that they must be hours 'identified and charged at source.' The definition was intended by both the contractor and the Air Force to include all types of payroll hours. Vacation hours are man-hours 'identified and charged at source to either automotive or defense operations by contract.' They are, therefore, within the scope of direct-charge man-hours as defined by the approved overhead manual.

"The conduct of the contractor conclusively indicated that it was his intention to include vacation hours in the overhead base. For the entire period from April 1, 1951, through July 31, 1952, the contractor consistently submitted public vouchers to the Air Force and received reimbursement for monthly overhead allocated to defense contracts by the use of allocation bases which included vacation hours. A further indication that it was the contractor's intention to include vacation hours in the overhead base is that no provision was made for the accounting segregation of salary vacation hours from other salary hours until January 31, 1952. Until that time, all salary vacation hours as well as hours worked were charged to account 5201, the normal salary account, and thus were intended to be and were actually included in the overhead base.

"The action of the Air Force in formally approving the basic accounting policy with respect to the allocation of overhead on October 26, 1951, conclusively indicated that it was the intention of the Air Force that vacation hours be included in the overhead base. This is supported by the fact that the Air Force approved the overhead policy at a time when they were accepting billings from the contractor for monthly overhead allocated to defense contracts with full and complete knowledge that the billings were established by the use of allocation bases which included vacation hours. If it had been the intention of the Air Force to exclude vacation hours from the approved overhead base, they would have been obligated to state this position explicitly when approving the overhead policy submitted by the contractor.

"Whole ordinarily vacation hours are not included in overhead bases, by the same token indirect man-hours and especially salary man-hours are also normally excluded from overhead bases. As pointed out earlier, the inclusion of vacation hours in an overhead base which also included indirect and salary hours as well as direct production hours represented a concession by the Air Force to the contractor's financial position. We wish to point out that each overhead system is unique. The overhead base in use at this installation, proposed by the contractor and approved by the Air Force, provided specifically for the inclusion of all payroll man-hours identified and charged at source to either automotive or defense operations.

"In support of our second contention, namely that the Air Force has formally objected to the contractor's attempt to change this policy with respect to vacation hours in the overhead base, we present the following facts:

"On May 7, 1952, in accounting policies letter No. 17, the contractor stated that 'vacation hours will not be included as direct charge man-hours in the computation of allocation bases.' This marked the contractor's first attempt to deviate from the established policy of including vacation hours in the overhead base.

"On May 28, 1952, this office alerted the contracting officer of the contractor's attempt to deviate from their established overhead policy. As a result, the contracting officer, Capt. Frank P. Bretney, notified the contractor in a letter

dated June 2, 1952, that the Air Force took exception to the contractor's deviation from established procedure. The contracting officer said in part, 'Your accounting policy concerning distribution of vacation payments was established by your method of charging these hours during the year 1951 as direct charge man-hours and including them in the computation of allocation bases.'

"As a consequence of the firm position taken by the Air Force on this matter, the contractor, in accounting policies letter No. 18 dated June 16, 1952, returned to his earlier established policy and stated that 'Vacation hours will be included as direct charge man-hours in the computation of allocation bases.'

"To further clarify the matter, the contractor submitted to the Air Force a revised Application of Overhead manual effective April 1, 1951, and issued May 1, 1952. This manual, approved by the Air Force as an integral part of the contractor's statement of accounting policy, defined the term 'direct charge man-hours' as follows:

"This term is used to identify man-hours which are identified and charged at source to either automotive or defense operations by contract and defense overhead pool. Man-hours within the scope of this terminology include all types of payroll, both hourly and salary, that are charged to overhead accounts and or defense contract costs as direct reimbursement charges. Vacation hours will be included as direct charge man-hours in the computation of allocation bases.

"In a letter dated September 10, 1952, the contractor made a second attempt to deviate from the established policy by proposing to cancel accounting policies letter No. 18 and reinstate accounting policies letter No. 17 which provides that vacation hours will not be included as direct charge man-hours.

"In their submission for reimbursement of overhead allocated to defense contracts for the month of August 1952, the contractor deviated for the first time from his established policy of including vacation hours in the computation of allocation bases. The resident auditor promptly took exception to the additional costs identified to Government contracts as a result of this deviation from established policy. Since that time, the resident auditor has continued to disapprove all additional costs identified to Government contracts through the exclusion of vacation hours from the overhead base.

"Recently, this question was taken to Mr. J. Robbins, Deputy Chief, Contract Section, Central Air Procurement District, for his determination on the matter. The problem was resolved when Mr. Robbins agreed with the position taken by the Auditor General and instructed the contracting officer to concur in the disapproval by the resident auditor of the questioned costs."

The undersigned has thoroughly reviewed this matter, including all pertinent documents pertaining thereto, and fully concurs in the disapproval of \$270,978.42 on Notice S-756, Bureau voucher S-1662, dated December 19, 1952.

This resolves item No. 1 of your letter to the undersigned, dated March 4, 1953, subject: Unresolved items.

Very truly yours,

MEYER J. STOUN,  
Contracting Officer.



## EXHIBIT X

*Summary of suspended, disapproved, and nonallowable costs, including cost of Edgar Kaiser's open letter published in reply to Senator Styles Bridges—as of February 28, 1953—Contract No. AF 33(038)—18481*

Suspended costs:		
Pending proper documentation.....	\$24, 544. 92	
Pending proper approvals.....	45, 775. 61	
Total suspended costs.....		\$70, 320. 53
Disapproved costs concurred in by Kaiser:		
Labor:		
Vacation payments.....	\$715, 631. 44	
Other labor costs adjustments.....	213, 885. 95	
	929, 517. 39	
Miscellaneous:		
Payroll taxes.....	100, 829. 63	
Duplicate charges (burden and direct)---	612, 347. 90	
Other burden adjustments.....	505, 652. 99	
Direct charges reaccounted.....	87, 151. 60	
E. Kaiser's Senator Bridges' letter.....	4, 864. 65	
	1, 310, 846. 77	
Total concurred in by Kaiser.....	2, 240, 364. 16	
Not concurred in by Kaiser: Burden adjustments due to shifting of vacation hours in burden bases.....		
	350, 281. 29	
Total disapproved costs.....		2, 590, 645. 45 <sup>1</sup>
Nonallowable costs: <sup>1</sup>		
Interest expense.....	\$1, 362, 267. 76	
Dedication of first C-119 airplane.....	61, 620. 65	
Traveling and entertainment expenses.....	72, 533. 12	
Miscellaneous expenses.....	132, 038. 85	
Total nonallowable costs.....		1, 628, 460. 38
Total suspended, disapproved, and nonallowable costs....		4, 289, 426. 36

<sup>1</sup> The contractor has recognized that the above listed nonallowable costs are not eligible for reimbursement by the Government.

## APPENDIX C

Kaiser Motors Corp.,  
Willow Run, Mich., July 10, 1953.

Hon. Styles Bridges,  
Chairman, Subcommittee on Aircraft Procurement,  
Senate Armed Forces Committee, Washington, D. C.

DEAR SENATOR BRIDGES: Through the courtesy of your subcommittee staff we have received a copy of the statement filed on June 30 with the subcommittee by Richard S. Boutelle, president, Fairchild Engine & Airplane Corp.

The position of our company has been fully set forth in the statement read into the record by Mr. Henry Kaiser on June 23 and June 24, in the 88-page additional statement which he submitted for the record on June 24, and in the testimony of Mr. Henry Kaiser and the undersigned on both those days. We believe that these statements and our testimony cover fully our position with respect to the points made in Mr. Boutelle's statement.

We are accordingly limiting ourselves to the filing of this letter, in order to cite the portions of our previous testimony which cover the principal points raised by Mr. Boutelle, and in order to reply briefly to one or two matters mentioned in Mr. Boutelle's statement.

Our comments are as follows:

(1) Mr. Boutelle's statement includes an attachment comparing the unit and total costs of Fairchild and Kaiser-Frazer, respectively, in producing the first 71.4 and first 159 C-119 planes. As we have shown in detail in our statements and testimony, and as the Air Force witnesses who testified before your committee have confirmed (e. g., the testimony of General Cook at pp. 232-237 and 395 of the typewritten transcript) our costs for any given number of C-119 planes cannot properly be compared to Fairchild's. General Cook summarized the matter as follows (transcript, p. 237):

"In conclusion, there can be little comparison between two contractors, one operating a large plant at a low rate and the other a small plant at a higher rate; one experienced and in going production, the other inexperienced and requiring tooling and training; one preparing for a high peak rate of production as mobilization insurance, the other already in the process of achieving its peak and a considerable lower peak; each with the varying concepts of tooling, overhead, and management common to their particular industry.

"Even their methods of computing direct labor hours and overhead differ, making costs in this area not comparable.

"Under the Kaiser contract, the Air Force set out to create new productive capacity and insurance—both for a growing Air Force and for mobilization reserve and not merely a specific quantity of aircraft."

As recently as June 13, 1953, after the first 4 days of testimony by Air Force witnesses before your subcommittee, the Air Force filed a statement with the House Appropriations Subcommittee on Department of Air Force Appropriations, appearing at page 996 of the printed hearings, which includes the following:

"[Kaiser's] costs are not fairly comparable to current Fairchild costs because Fairchild has been in production now for more than 4 years and had substantial prior experience in a predecessor aircraft going back to World War II. Not only were Fairchild's starting costs not included in the current contract, but Kaiser's starting costs were substantially higher because they included tooling at a higher rate, heavier fixed charges because of the size of the plant, and the fact that it is privately owned, and the expensive business of training labor and management in a new type of production. Kaiser's costs are also higher because they include the starting costs of new major subcontractors."

Further, if any comparison between Kaiser costs and Fairchild costs is to be attempted, the most nearly comparable basis would be to compare Kaiser's costs for initial production of the C-119 aircraft with Fairchild's costs for its initial production of the predecessor C-82 aircraft, adjusted for increases in airframe weight, increases in cost indexes, and similar factors. On this basis, as the testimony shows, Fairchild's first 10 C-82 aircraft cost on an adjusted and comparable basis in the range of \$4,300,000 each. Kaiser's first 14 C-119's, according to Air Force figures included in Document No. 2 placed in the record at transcript page 405-1, cost \$2,015,969 each, with all nonrecurring costs and preproduction expense amortized over the entire 159 planes. Even when preproduction expense incurred through the date of completion of the first 14 Kaiser planes is amortized over the 39 equivalent planes completed through that date (instead of over 159 planes), the first 14 Kaiser planes cost only \$3,443,000 each. And if all Kaiser preproduction costs (primarily of a type not incurred by Fairchild in performing its C-82 contract) are amortized over the first 14 Kaiser planes, the average cost of these planes is only \$4,295,000 each. Fairchild's first 149 C-82's cost in the range of \$900,000 each on an adjusted basis, while the estimated cost of Kaiser's first 159 C-119's would have been in the range of \$1,200,000 each. These figures are all a matter of record. They lead to the inescapable conclusion to the extent that our costs can fairly be compared with Fairchild's, our costs are reasonably close to Fairchild's when both companies had progressed an equal distance along the learner's curve, despite the fact that Willow Run was a large plant, tooled to a high capacity but with a limited production, whereas Hagerstown was a small plant, with tooling built only as required for current production.

(2) Mr. Boutelle's statement also deals at length with the quality of the technical assistance furnished by Fairchild. He states that Fairchild did its best, and that Fairchild did a good job, but at the same time he frankly admits that Fairchild "strenuously and openly opposed the entry of Kaiser-Frazer into the C-119 program." We leave it to the committee to judge the probability that Fairchild's strenuous opposition to our entry into the C-119 program may have affected the quality of the technical assistance which Fairchild was required by the Air Force to furnish against its own will and against its own competitive interests.

Mr. Boutelle correctly states that channels for handling problems arising in the course of the technical assistance program were established by agreement between Mr. Boutelle and the undersigned. He further states that a search of Fairchild's records does not disclose any written communications from responsible officials of Kaiser-Frazer complaining of any failure to supply adequate technical assistance.

We have submitted to the committee a representative list of specific communications and memoranda of conferences attended by representatives of the Air Force and Fairchild, in which responsible officials of our company stated detailed reasons why specific items of technical assistance and data furnished by Fairchild were neither adequate nor correct.

(3) Mr. Boutelle's statement includes an attachment describing the history of the so-called Omaha package stating that Fairchild had advised us of the limitations of the package and had warned us against its misuse, and that we had nevertheless misused the package by placing an order for engine mounts which everyone knew were not to be used in the F type C-119's built by Kaiser.

The facts are that the limitations of the Omaha package were recognized by the Air Force, Fairchild, and Kaiser. A decision was made to order parts based on the data contained in the package as the lesser of two evils. The lesser evil was the risk that some of the parts might not be adaptable for the F model and would have to be reworked. The greater evil was the delay and added cost that would have resulted if parts were not ordered until the complete engineering data for the F model had been received from Fairchild (which in fact took an additional year). This decision was made with the written approval of the Air Force based on Air Force knowledge of the risks involved.

Moreover, it can clearly be established in the light of hindsight that the decision to use the Omaha package in this way was correct. By taking this step, Kaiser was able to produce its first F model plane in about the same length of time as Fairchild produced its first prototype F model, and Kaiser continued assembly line production of F models while Fairchild was still building C models. If the Omaha package had not been used, Kaiser's production would have been delayed by many additional months, and Kaiser's costs would have been substantially increased by the resulting unproductive overhead burden. A copy of the Air Force letter specifically approving the use of the Omaha package as a basis for ordering parts is attached as exhibit A to this letter.

The Fairchild statement selects, as its example of how our company allegedly misused the Omaha package, the placing of an order for certain engine mounts included in the Omaha package, bill of materials for the C model plane, which were not to be used for the F model plane which Kaiser was to build. The fact is that no such order was ever placed. After the Air Force had approved the procedure of placing orders with suppliers based on the bill of materials contained in the Omaha package, our planning department wrote a requisition for these engine mounts on March 1, 1951. This requisition went to our purchasing department which made a preliminary inquiry of the supplier. Shortly thereafter it was learned that the engine mounts were not to be used on the F model plane, and on May 24, 1951 the requisition was canceled. No purchase order was ever written.

(4) Mr. Boutelle states that he is filing his statement on behalf of the stockholders and employees of Fairchild who are justly proud of their company's name and record. Kaiser Motors Corp. has 30,000 stockholders, almost 40,000 employees, over 4,000 dealers, each operating an independent business on which he depends for his livelihood, and some 2,000 major suppliers who depend on us for a substantial proportion of their business, we are equally proud of our company's name and record. It is our name and record—not Fairchild's—that have been attacked during the hearings of your subcommittee.

We appreciate the opportunity your subcommittee has afforded us to reply to these attacks by presenting the complete facts. We believe we have faithfully and creditably performed our aircraft contracts with the Government. Together with the thousands of stockholders, employees, dealers and suppliers who depend upon us, we depend upon your committee's sense of fair play to present all of the facts impartially and to draw objective conclusions in its report.

Sincerely,

EDGAR F. KAISER, *President.*

FEBRUARY 16, 1951.

Subject: Discrepancies in Fairchild furnished; bill of material.

To: William G. Cruikshank, captain, USAF, acting Air Force resident, officer-in-charge, Kaiser-Frazer Corp., Willow Run, Mich.

We are in the process of ordering parts for the first block of 22 C-119 cargo planes and acquiring raw materials for the fabrication of 64. The only bill of material which we have available is the one furnished to us by the Fairchild aircraft division of the Fairchild Engine & Airplane Corp.

On checking this bill of material in connection with the placing of orders, we have been advised by the vendors that there are discrepancies in such bill of material and that it is not entirely up to date. If, therefore, we are to proceed with the placing of orders, there is a possibility that we will acquire materials that will later be found to be obsolete. On the other hand, the proposed schedules for the manufacture of the first cargo planes will be jeopardized if we await the receipt of a fully corrected bill of material from Fairchild.

We are presently calling any discrepancies to the attention of Fairchild, obtaining corrections as rapidly as possible and correcting purchase orders in the light of revisions in the bill of material.

In view of the foregoing, we recommend that we proceed to place orders on the basis of the bill of material which we now have, upon the understanding that no disallowances will be made in costs by virtue of the fact that this procedure may entail purchasing material which later cannot be used in the plane.

If this meets with your approval, kindly indicate on the attached copy of this letter.

JOHN HALLETT,  
*Executive Vice President, and General Manager.*

Approved:

W. G. CRUIKSHANK,  
*Captain, USAF, Acting Resident AF Officer-in-Charge,  
United States Army Air Force.*  
S. M. SHELTON,  
*Contracting Officer, United States Army Air Force.*

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APPENDIX D

FAIRCHILD ENGINE AND AIRPLANE CORP.,  
*Hagerstown, Md., July 10, 1953.*

HON. STYLES BRIDGES,  
*Room 147, Senate Office Building,  
Washington, D. C.*

DEAR SENATOR BRIDGES: Enclosed is supplemental data to be inserted in the record of the hearings concerning your subcommittee's investigation of procurement of C-119 aircraft.

Respectfully yours,

RICHARD S. BOUTELLE, *President.*

STATEMENT BY RICHARD S. BOUTELLE, PRESIDENT, FAIRCHILD ENGINE & AIRPLANE CORP., BEFORE PREPAREDNESS SUBCOMMITTEE NO. 1, ARMED SERVICES COMMITTEE, UNITED STATES SENATE

The following are supplemental data to clarify and correct certain statements in the record of the hearings concerning procurement of C-119 aircraft:

1. The transcript, at page 508, has the following statement:

"The Government, during World War II, invested almost \$42 million in facilities operated by Fairchild, as compared to a little over \$1 million invested by Fairchild itself."

The following schedule shows the cost of Government-furnished facilities operated by Fairchild during World War II:

Division and location	Amount
Aircraft:	
Hagerstown, Md. ....	\$9, 245, 141. 47
Burlington, N. C. <sup>1</sup> .....	3, 526, 470. 26
Engine:	
Farmingdale, Long Island .....	6, 992, 614. 61
Jamaica, Long Island <sup>1</sup> .....	7, 611, 785. 96
Duramold: Jamestown, N. Y. <sup>1</sup> .....	1, 423, 591. 08
Total .....	28, 799, 603. 38

<sup>1</sup>Not constructed for, and not currently operated by, Fairchild.

2. The transcript, at pages 440 et seq., creates the impression that the C-119F was a new airplane, differing substantially in cost and manufacturing complexity from the C-119C, and that during the period Kaiser-Frazer was building the C-119F, Fairchild was still building the C-119C.

Since 1949 Fairchild has delivered a number of different models of C-119 type aircraft. Pertinent information concerning these models is set forth in the following schedule:

Model number	Date of delivery, 1st airplane	Total delivered as of June 30, 1953	Percentage engineering change
C-119B. ....	April 1949. ....	54	
C-119C. ....	March 1950. ....	303	5 percent from B.
R4Q-1. ....	December 1949 <sup>1</sup> .....	39	3 percent from C.
C-119F. ....	November 1951. ....	167	20 percent from C.
C-119G. ....	December 1952. ....	34	8 percent from F.
R4Q-2. ....	February 1953. ....	58	4 percent from F.

<sup>1</sup> The 1st few R4Q-1 airplanes were modifications of the B model. The balance were delivered after the C model was in production and were modifications of it.

Work on the change from the C-119C to the C-119F began in March 1951. The engineering information was furnished to Kaiser-Frazer concurrently with its release to the Fairchild production department. The major changes involved the incorporation of Wright 3350-85 engines instead of Pratt & Whitney R-4360-20W's and hydraulic operation of landing gear and flaps rather than electrical. The first Fairchild C-119F came off the production line in November 1951. We are informed that the first Kaiser-Frazer airplane was accepted in May 1952.

3. Fairchild's delivery schedule <sup>1</sup> for C-119 type aircraft, and deliveries against that schedule, for the past 32 months, are as follows:

Month and year	Scheduled	Delivered	Month and year	Scheduled	Delivered
1950—November.....	3	8	1952—March.....	12	12
December.....	8	8	April.....	14	14
1951—January.....	0	0	May.....	17	17
February.....	6	6	June.....	19	19
March.....	8	8	July.....	20	20
April.....	9	9	August.....	20	20
May.....	10	10	September.....	22	22
June.....	10	10	October.....	23	23
July.....	12	12	November.....	23	23
August.....	12	12	December.....	26	26
September.....	13	13	1953—January.....	26	26
October.....	13	13	February.....	27	27
November.....	14	14	March.....	29	29
December.....	14	14	April.....	28	28
1952—January.....	11	11	May.....	28	28
February.....	11	11	June.....	27	27

<sup>1</sup> See attachment.

4. With reference to the statement furnished to the subcommittee on June 30 1953, and in further response to the allegations made at the hearings that Fairchild failed to supply proper and adequate technical advice and assistance to Kaiser-Frazer, there is submitted the following:

(a) On May 17, 1951, at a meeting attended by Messrs. Finletter, McCone, and high officers of the Air Force, and Messrs. Boutelle and Loening for Fairchild, Mr. McCone, on behalf of the Air Force, complimented Mr. Boutelle for the excellent job which Fairchild was doing in cooperating with Kaiser-Frazer.

(b) K-F News for March 24, 1952, stated as follows: "Air Force, Fairchild, employee teamwork lauded by Kaiser. Speaking at the C-119 dedication ceremony, Henry J. Kaiser paid tribute to K-F employees for the part they played in assembling the first Fairchild 'flying boxcar' at Willow Run in the short span of 8 months.

"Kaiser also lauded the Air Force and Fairchild Engine & Airplane Corp. for the valuable cooperation they provided.

"There are congratulations due to each man who has played an important part in building this first plane," he said, "the workman, the production men, and the planners of Willow Run.

"The farsighted planning of the Air Force in storing World War II tools and machinery, which otherwise would have taken months to build, were made available to K-F," he said.

"Fairchild furnished us with their engineering design and technical know-how and the component parts for the first planes."

"Kaiser said that 'We have joined hands with the Air Force, with Fairchild and with the workmen of Local 142 UAW-CIO—and the result is this dedication ceremony.'"

(c) In a letter dated March 24, 1952, addressed "To all Kaiser-Frazer Employees," Mr. Edgar Kaiser stated: "As we all know the first C-119 was produced through the complete cooperation of the USAF, the Fairchild Engine & Aircraft Corp., and the people of K-F."

(d) Mr. Henry Kaiser's affidavit in answer to Representative O'Konski's charges (Congressional Record, June 17, 1952) states in part:

"At the news conference, great emphasis was placed on the assistance that had been rendered under the technical-assistance agreement between the Air Force, K-F, and Fairchild. Public recognition of Fairchild's part in the program was also made by Mr. Henry Kaiser in his remarks at the dedication ceremony."

(e) In early October 1952, Mr. R. L. Gilpatric, Under Secretary of the Air Force, expressed to Mr. Boutelle his appreciation for the excellence of the technical assistance furnished Kaiser-Frazer by Fairchild.

(f) On 13th day of February 1952, following a meeting at Willow Run, Col. Beverly Warren, Deputy Director of Procurement and Production, Air Materiel Command, USAF, stated to Mr. Paul J. Frizzell, vice president of Fairchild Engine & Airplane Corp.:

"I want to congratulate you and your people for the job you are doing under the assistance agreement. It certainly is in sharp contrast with other comparable situations with which I have to work."

#### ATTACHMENT

Contract W33-038ac-19200, dated February 26, 1948, as amended, called for the delivery of 143 C-119's by the end of November 1950. The first airplane scheduled for acceptance in December of 1948 was not delivered until April of 1949. However, the remaining 142 C-119's were delivered by the end of November 1950 as the contract specified.

#### APPENDIX E

##### MEMORANDUM OF MEETING OF MARCH 23, 1953

On March 23, 1953, at 1445 hours, a meeting was held in the office of the Resident Auditor, Auditor General, USAF, Kaiser Manufacturing Corp., Willow Run, Mich. In attendance were Mr. H. M. Devlin and Mr. J. Anton, special staff members for the Preparedness Investigating Subcommittee of the United States Senate Committee on Armed Services; Mr. F. D. Skinner, Chief, Industrial Audits, Mid-Central District, Auditor General, USAF; Mr. S. C. Solomon, Resident Auditor, USAF, Kaiser Manufacturing Corp.; and Mr. M. L. Simpson, Assistant Resident Auditor, USAF, Kaiser Manufacturing Corp.

The following information was requested of Mr. S. C. Solomon by Mr. H. M. Devlin and Mr. J. Anton:

1. Copy of the joint audit report covering the first 6 months of 1952, with comments and recommendations when completed.
2. Report of costs of C-119 airplanes (by blocks or lots if possible) for the periods ending January 31, 1952, July 31, 1952, and February 28, 1953, broken down in accordance with attached schedule A. The tooling costs pertaining to Fairchild Aircraft Division, Chicago, Ill., included in the above costs, are to be reflected by footnote.
3. C-119 airplanes completed plus equivalent airplanes in process as of January 31, 1952, July 31, 1952, and February 28, 1953.
4. Report of costs of the first 14 C-119 airplanes for the periods ending January 31, 1952, July 31, 1952, and February 28, 1953.
5. Open commitments made by Kaiser Manufacturing Corp. for the production of the C-119 aircraft as of January 31, 1952, July 31, 1952, and February 28, 1953.
6. Breakdown of suspended, disapproved, and nonallowable costs, by major categories, including the disposition of the cost of Edgar Kaiser's open letter published in reply to Senator Styles Bridges.

The above is in accordance with oral request made at the subject meeting.

H. M. DEVLIN.  
J. ANTON.

MARCH 24, 1953.

DEPARTMENT OF THE AIR FORCE,  
COMPTROLLER, AUDITOR GENERAL,  
*Willow Run, Mich., April 3, 1953.*

Subject: Reply to United States Senate Committee on Armed Services. Inquiry relative to Kaiser-Frazer Corp., Willow Run, Mich.

Through: Auditor General, DCS/C, USAF, The Pentagon, room 5C 543, Washington 25, D. C.

To: Director of Legislation and Liaison, Office of the Secretary of the Air Force, Headquarters, USAF, Washington 25, D. C.

1. The following information is submitted relative to an oral inquiry confirmed in writing on March 24, 1953, by Mr. H. M. Devlin and Mr. J. Anton, special staff members for the Preparedness Investigating Subcommittee of the United States Senate Committee on Armed Services:

(a) *Inquiry item No. 1*

(1) Request: Copy of joint audit report covering the first 6 months of 1952, with comments and recommendations when completed.

(2) Reply: The report on the joint audit covering the first 6 months of 1952 has not been completed. A copy will be forwarded to you within 2 weeks.

(b) *Inquiry item No. 2*

(1) Request: Report of costs of C119 airplanes (by blocks or lots if possible) for the periods ending January 31, 1952, July 31, 1952, and February 28, 1953, broken down in accordance with attached schedule A. The tooling costs pertaining to Fairchild Aircraft Division, Chicago, Ill., included in the above costs, are to be reflected by footnote.

(2) Reply: The requested costs are set forth on enclosures 1, 2, and 3 and may be summarized as follows:

	Jan. 31, 1952	July 31, 1952	Feb. 28, 1953
Total costs and fee (excluding preproduction).....	\$17,379,422.11	\$50,414,307.01	\$100,619,291.62
Equivalent ships completed.....	5.5	21.6	57
Average unit selling price.....	\$3,159,894.92	\$2,333,995.69	\$1,765,250.72
Dollars per airframe pound.....	\$105.33	\$77.80	\$58.84
Direct labor hours per airframe pound.....	10.781	8.081	6.419

#### NOTES

- (a) The total cost and fee figures shown above do not include the cost of major assemblies, subassemblies, and primary parts supplied by Fairchild Aircraft Division under a technical-assistance agreement.
- (b) The figures for equivalent ships completed do not include an evaluation of the following costs:
- (1) Subcontractors' costs representing on-site subassemblies which have not been released to the production line.
  - (2) Subcontractors' costs representing subassemblies and in process work still in the subcontractors' plants.
  - (3) Productive material released to the production line upon which no productive labor had been incurred.
- Within the time limitations imposed it has not been possible for either the contractor or the auditor to evaluate these costs in the computation of equivalent airframes completed.
- (c) It will be necessary to further consider the effect of qualifications (a) and (b) above on the average-unit selling price and dollars per airframe pound.

#### (c) Inquiry item No. 3

- (1) Request: C-119 airplanes completed plus equivalent airplanes in process as of January 31, 1952, July 31, 1952, and February 28, 1953.
- (2) Reply: C-119 airplanes completed plus equivalent airplanes in process were as follows:

	Completed	Equivalent airplanes in process	Total equivalent airplanes
As of Jan. 31, 1952.....	0	15.5	15.5
As of July 31, 1952.....	9	12.6	21.6
As of Feb. 28, 1953.....	34	23.0	57.0

<sup>1</sup> See qualifications in footnote (b) of paragraph 1 (b) (2) above.

#### (d) Inquiry item No. 4

- (1) Request: Report of costs of the first 14 C-119 airplanes for the periods ending January 31, 1952, July 31, 1952, and February 28, 1953.
- (2) Reply: Costs of the first 14 C-119 airplanes are set forth in detail on enclosure 4 and may be summarized as follows:

	Jan. 31, 1952	July 31, 1952	Feb. 28, 1953
Cost to the contractor: Total production costs (excluding preproduction).....	\$12,550,884.18	\$21,390,397.21	\$22,823,948.04
Cost to the Government: Total production cost and fixed fee (excluding preproduction).....	12,733,919.27	21,916,091.48	23,442,813.14

#### (e) Inquiry item No. 5

- (1) Request: Open commitments made by Kaiser Manufacturing Corp. for the production of the C-119 aircraft as of January 31, 1952, July 31, 1952, and February 28, 1953.
- (2) Reply: Open commitments are set forth by major grouping on enclosure 5 and may be summarized as follows:

As of Jan. 31, 1952.....	\$27,474,479
As of July 31, 1952.....	22,097,499
As of Feb. 28, 1953.....	25,554,342



(f) *Inquiry item No. 6*

(1) Request: Breakdown of suspended, disapproved, and nonallowable costs, by major categories, including the disposition of the cost of Edgar Kaiser's open letter published in reply to Senator Styles Bridges.

(2) Reply: The adjustments are set forth by major categories on enclosure 6 and may be summarized as follows:

Suspended costs-----	\$70, 320. 53
Disapproved costs-----	2, 590, 645. 45
Nonallowable costs <sup>1</sup> -----	1, 628, 460. 38
Total-----	4, 289, 426. 36

<sup>1</sup> The contractor has recognized that the above listed "Nonallowable" costs are not eligible for reimbursement by the Government.

The \$4,864.65 cost of Edgar Kaiser's open letter published in reply to Senator Styles Bridges has been disallowed by both the resident auditor and the administrative contracting officer. The contractor's and the Air Force treatment of the costs are reflected on enclosures 7, 8, and 9.  
 For the District Chief:

SIDNEY C. SOLOMON,  
*Resident Auditor, USAF.*

APPENDIX G

1. Senator Byrd requested that the committee be furnished with the following information:

(a) A list of all companies in which the interest of Henry J. Kaiser and his associates is at least as large as their interest in Kaiser Motors Corp.;

(b) A summary of the amount of Government contracts held by such companies since 1942;

(c) A summary of the Government loans held by such companies since 1942; and

(d) A summary of the amount of tax amortization certificates currently held by such companies.

The information requested is as follows:

## APPENDIX F

C-119 BUILD-UP FINAL ASSEMBLY				C-123 BUILD-UP FINAL ASSEMBLY			
SCHEDULE		PRODUCTION		AF ACCEPT		FLYAWAY	
MONTHLY	DAILY	TODAY	THIS MO.	(SEE BELOW)	(SEE BELOW)	THIS MONTH	DATE OF REPORT
C-119 SUB-ASSEMBLY		C-123 SUB-ASSEMBLY		C-119 MACHINING AND FABRICATION		C-123 MACHINING AND FABRICATION	
LOT	ITEMS	COMP.	+ OR -	LOT	ITEMS	COMP.	+ OR -
3 & 4	29583	29583	- 167	601	3092	7869	7477
5	12105	11061	-1044	602	9576	4791	4785
6	11639	9974	-1655	603	2249	2329	7 80
7	5216	5776	+ 560	697	0	61	7 61

EMPLOYEES		SUB-CONTRACTORS		C-123	
DEPT.	NO.	DEPT.	NO.	DEPT.	NO.
ACROFT DEPTS.	889	PROD. & DELIVERY SUM.	11	PROD. ACCEPT	0
MACH. & PAIR	2024	SCHEDULE THIS MONTH	9	PROD. ACCEPT	0
SUB-ASST	1361	ACTUAL THIS MONTH	4	PROD. ACCEPT	0
ANAL AGSY & Flt. Test	4274	SCHEDULE TO DATE	55	PROD. ACCEPT	0
TOTAL DIR. MFG.	352	ACTUAL TO DATE	58	PROD. ACCEPT	0
PAI'L HAND	650				
Prod. Control	102				
Mfg. Control	79				
Service Spares	24				
Defense Mfg. Adm.	398				
Eng. Aircraft					
Equivalent Employees					
CHARGED TO AIRCRAFT					
TOTAL W.R.	5879				

SUB-CONTRACTORS		C-119		C-123	
DEPT.	NO.	DEPT.	NO.	DEPT.	NO.
PROD. & DELIVERY SUM.	11	PROD. ACCEPT	0	PROD. ACCEPT	0
SCHEDULE THIS MONTH	9	PROD. ACCEPT	0	PROD. ACCEPT	0
ACTUAL THIS MONTH	4	PROD. ACCEPT	0	PROD. ACCEPT	0
SCHEDULE TO DATE	55	PROD. ACCEPT	0	PROD. ACCEPT	0
ACTUAL TO DATE	58	PROD. ACCEPT	0	PROD. ACCEPT	0

TOTAL AIRCRAFT		C-119		C-123	
DEPT.	NO.	DEPT.	NO.	DEPT.	NO.
PROD. & DELIVERY SUM.	11	PROD. ACCEPT	0	PROD. ACCEPT	0
SCHEDULE THIS MONTH	9	PROD. ACCEPT	0	PROD. ACCEPT	0
ACTUAL THIS MONTH	4	PROD. ACCEPT	0	PROD. ACCEPT	0
SCHEDULE TO DATE	55	PROD. ACCEPT	0	PROD. ACCEPT	0
ACTUAL TO DATE	58	PROD. ACCEPT	0	PROD. ACCEPT	0

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1. LIST OF ALL COMPANIES IN WHICH THE INTEREST OF HENRY J. KAISER AND HIS ASSOCIATES IS AT LEAST AS LARGE AS THEIR INTEREST IN KAISER MOTORS CORP.<sup>1</sup>

Consolidated Builders, Inc. (construction)

Henry J. Kaiser Co. (formerly Kaiser Industries, Inc.):

Divisions:

Sand and Gravel

Kaiser Engineers

Subsidiaries:

Foothill Electric Corp.

Henry J. Kaiser Construction Co.

The Midland Co.

Industrial Indemnity Co. (insurance)

Kaiser Aluminum & Chemical Corp. (formerly the Permanente Metals Corp.):

Subsidiaries:

Kaiser Aluminum & Chemical Sales, Inc.

Kaiser Bauxite Co.

Kaiser Magnesium Co.

Kaiser Community Homes (housing)

Kaiser Metal Products Inc. (formerly Kaiser Fleetwings, Inc.)

Subsidiary: Kaiser Fleetwings Sales Corp.

Kaiser Motors Corp. (formerly Kaiser-Frazer Corp.):

Subsidiaries:

Kaiser Manufacturing Corp.

Kaiser-Frazer Sales Corp.

Kaiser & Frazer Parts Corp.

Kaiser-Frazer Export Corp.

Kaiser-Frazer of Canada, Ltd.

Willys Motors, Inc.:

Willys-Overland Export Corp.

Willys Motors of Canada, Ltd.

Kaiser Services (administrative services for Kaiser-affiliated companies)

Kaiser Steel Corp. (formerly Kaiser Co., Inc.):

Subsidiary: Iron Queen Mining Co.

Permanente Cement Co.:

Subsidiaries:

Glacier Sand & Gravel Co.

Kaiser Gypsum Co., Inc. (formerly Pacific Coast Cement Co.):

Compania Occidental Mexicana, S. A.

Gypsum Carrier, Inc.

Permanente Steamship Corp.

Underwriters Service, Inc. (insurance services).

NOTE.—The above list includes all of the companies listed at pp. 517–518 of the record except Pacific Coast Steamship Corp., which had never had any affiliation with any Kaiser company, and the following companies, which are not active corporate entities:

Phoenix Bridge Corp.

Sierra Magnesite Co.

West Willow Housing Development.

2. SUMMARY OF THE AMOUNT OF GOVERNMENT CONTRACTS HELD BY SUCH COMPANIES SINCE 1942

By agreement with the committee staff, this information is furnished in summary form in table B below, showing (1) the dollar volume by company of unclassified contracts held (a) during World War II and (b) since World War II; and (2) the dollar volume of all classified contracts held by all companies during and since World War II. The dollar volume of unclassified contracts is further subdivided into contracts for facilities, contracts for services, and contracts for materials and equipment, together with a brief identification of each major class of contracts.

<sup>1</sup> Until the acquisition of the Willys-Overland automotive assets by a subsidiary of Kaiser Motors in the spring of 1953, the Kaiser interest in Kaiser Motors was 9.5 percent. As a result of the financial transactions connected with this acquisition, the Kaiser investment in Kaiser Motors was substantially increased, and is now 37.67 percent. This list, however, includes all active companies in which the Kaiser interest is 9.5 percent or higher.

I. Unclassified contracts  
A. WORLD WAR II CONTRACTS

Name	Facilities	Services	Materials and equipment	Total
California Shipbuilding Corp., (No longer active):				
Materials custody		\$160,000		
Facilities (including layup)	\$25,231,000			
Ship repair		433,000		
Caissons			\$36,000	
Ship construction			964,979,000	\$990,839,000
Henry J. Kaiser Co.: Sand and Gravel Division:			945,000	945,000
Building supplies				
Kaiser Co., Inc. (now named Kaiser Steel Corp.):				
Facilities (including layup)	148,831,000			
Materials custody		13,000		
Ship repair		34,974,000		
Tugboat operation		70,000		
Sea trial		72,000		
Drydock			5,363,000	
Conversion			1,774,000	
Outfitting			6,631,000	
Ship construction			1,516,016,000	
Steel and pig iron			33,939,000	1,747,683,000
Kaiser Fleetwings, Inc. (now named Kaiser Metal Products, Inc.):				
Aircraft and aircraft parts			78,608,000	
Engineering and design		53,394,000		
Ship construction			74,448,000	206,750,000
Kaiser Industries, Inc. (now named Henry J. Kaiser Co.): Shell contracts	17,090,000		37,690,000	54,780,000
Oregon Shipbuilding Corp. (no longer active):				
Facilities (including layup)	27,381,000			
Materials custody		45,000		
Ship construction			939,476,000	
Pontoons			9,515,000	976,417,000
Permanent Cement Co.: Cement sales			3,499,000	3,499,000
The Kaiser Co. (no longer active): Ship repair		5,053,000		5,053,000
The Permanent Metals Corp. (now named Kaiser Aluminum & Chemical Corp.):				
Magnesium and goop incendiaries	11,430,000	203,000	23,012,000	
Shipyards facilities (including layup)	35,422,000			
Tugboat operation services		675,000		
Materials custody		82,000		
Caissons			543,000	
Ship construction			1,232,296,000	1,303,663,000
Walsh-Kaiser Co., Inc. (no longer active):				
Facilities (including layup)	9,434,000			
Maintenance and protection		922,000		
Ship construction			170,963,000	181,319,000
Total World War II contracts				5,470,948,000

I. *Unclassified contracts*—Continued

B. POST WORLD WAR II CONTRACTS

Name	Facilities	Services	Materials and equipment	Total
Henry J. Kaiser Co.:				
Kaiser Engineers Division: Engineering services		\$830,000		\$830,000
Sand and Gravel Division: Building supplies			\$120,000	120,000
Kaiser Aluminum & Chemical Corp.:				
Fee for operation of manteca magnesium plant		197,000		
Preparation of chrome ore storage site		70,000		
Research and development contracts		210,000		
Payment for excess power costs to produce aluminum during power shortage		1,106,000		
Construction of special fabricating facilities <sup>1</sup>	\$35,829,000			
Sales of products to defense contractors			97,466,000	134,878,000
Kaiser Metal Products, Inc.:				
Aircraft components			113,601,000	
Research and development		26,000		
Facilities	2,598,000			116,225,000
Kaiser Steel Corp.:				
Steel—Direct sales to Government			3,336,000	
Steel—Sales to defense contractors			15,868,000	19,204,000
Permanent Cement Co.: Cement sales			5,382,000	5,382,000
Willis Motors, Inc.:				
Aircraft and Aircraft components <sup>1</sup>	29,933,000		535,088,000	
Forgings			15,000	
Shell casings			8,948,000	
Research and development		663,000		
Vehicles and parts	6,400,000		113,366,000	899,870,000
Land mines			5,267,000	976,309,000
Total Post World War II contracts				

<sup>1</sup>Includes work terminated before completion of amount shown.

II. Classified contracts: Classified contracts (all companies) 120,883,000

III. Grant Total:  
Unclassified, World War II 5,470,948,000  
Unclassified, Post World War II 976,309,000  
Classified 120,883,000  
Total 6,568,140,000

3. SUMMARY OF THE GOVERNMENT LOANS HELD BY SUCH COMPANIES SINCE 1942

Senator Byrd introduced a table entitled "Reconstruction Finance Corporation Loans to Henry J. Kaiser Co. and Affiliates," showing the amounts of loans made to various companies, the dates of repayment, and the amounts outstanding as of May 31, 1953.

This table has been examined and appears to be correct except that the title quoted above should be corrected to reflect the fact that no RFC loans have ever been made to Henry J. Kaiser Co. All of the loans listed were made to affiliates of Henry J. Kaiser Co., in some of which Henry J. Kaiser Co. owns only a minority interest.

It should also be noted that no RFC loan to any affiliate of Henry J. Kaiser Co. has ever been in default; that of the \$219,011,919 loaned by RFC to these companies, \$185,626,794 has been repaid, much of it in advance of maturity; that these companies have paid to RFC a total of over \$33 million in interest, and that a large proportion of the loans were made during World War II to finance urgent defense projects.

Finally, it should be noted that well over 90 percent of the total present investment in the various companies affiliated with Henry J. Kaiser Co. has been privately invested by banks, insurance companies, and individuals, and that the private financial investment in these companies is well over \$600 million.

4. SUMMARY OF THE AMOUNT OF TAX AMORTIZATION CERTIFICATES CURRENTLY HELD BY SUCH COMPANIES

At page 512 of the transcript, Senator Byrd introduced into the record a list of tax-amortization certificates held by various Kaiser companies. This list is incorrect in a number of particulars, and a corrected list prepared in the same form as the list at page 512 is set forth below. In reviewing this list, the following points should be noted:

(a) Under section 124A of the Internal Revenue Code, the President is authorized to issue "certificates of necessity" authorizing taxpayers who build facilities considered important for defense purposes to "amortize" a percentage of the cost of the facilities over a period of 5 years, instead of depreciating the facilities over their normal useful life. The percentage of the cost which may be amortized in this way is the percentage which is deemed attributable to defense purposes, and which may not have economic utility after the defense emergency.

(b) Certificates of necessity are used by the Government as an incentive for privately financed expansion of industrial facilities for defense purposes. A certificate of necessity does not increase the tax deduction allowed for amortization and depreciation, but permits a substantial percentage of the deduction to be taken over a relatively short period of time. Thus, to whatever extent the amortization deduction tends to reduce current taxable income, it increases future taxable income by a corresponding amount, after the amortization deduction has been used up.

(c) Under the accelerated amortization program, applications are filed which request the issuance of certificates of necessity to cover a stated amount of new construction. A certificate may then be issued covering all or part of the requested amount. However, the amount certified may not ordinarily be written off on an accelerated basis in its entirety. Instead, the usual practice is to permit accelerated amortization only of a percentage of the amount actually certified. The balance certified is then depreciated in the usual manner. Thus, the amount of amortization cannot be measured merely by considering the amount certified without also considering the percentage of the amounts certified which is made eligible for accelerated amortization.

(d) In the tabulation inserted in the transcript at page 512, the last column, entitled "Amount Amortized to Date" should read "Amount Eligible for Accelerated Amortization", since this figure represents in each case the percentage of the amount certified which is eligible for accelerated amortization. By the same token, the discussion in the transcript about \$420 million worth of accelerated amortization (transcript, pp. 508-509) is not accurate; \$420 million is the total amount shown in the table at page 512 as having been certified for accelerated amortization. It is not the amount actually eligible for accelerated amortization.

(e) There are also several other discrepancies between the amounts shown in that table and the amounts shown by the records of the various Kaiser-affiliated companies which have received certificates of necessity for accelerated amortization. Accordingly, the following revision of the table is presented for the subcommittee's information. It will be noted that Pacific Coast Steamship Corp. has been deleted, since this company has never had any Kaiser affiliation.

KAISER-AFFILIATED COMPANIES

*Tax amortization: Applications, certifications, amounts eligible for amortization <sup>1</sup>*

Company	Amount of application	Amount certified	Amount eligible for accelerated amortization
Kaiser Metal Products.....	\$1,608,000	\$1,389,000	\$1,042,000
Kaiser-Frazier.....	1,461,000	772,000	579,000
Permanente Cement Co.....	5,793,000	5,015,000	3,109,000
Kaiser Bauxite.....	11,804,000	11,804,000	9,543,000
Kaiser Steel.....	163,611,000	<sup>2</sup> 105,975,000	87,481,000
Kaiser Aluminum & Chemical Corp.....	314,426,000	253,787,000	208,687,000
Permanente Steamship Co.....	775,000	<sup>(3)</sup>	
Kaiser Industries.....	2,510,000	<sup>(3)</sup>	
Total.....	501,928,000	408,742,000	310,441,000

<sup>1</sup> Altogether 61 applications were made of which 51 were granted in whole or part. Figures are as of June 22, 1953.

<sup>2</sup> Does not include application for \$52 million amortization allowance still pending.

<sup>3</sup> Denied.

## AIRCRAFT PROCUREMENT

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## APPENDIX H

COST COMPARISON OF KAISER C-119 AIRPLANE AND FAIRCHILD C-82 AIRPLANE—  
PREPARED BY KAISER

The following tables show the unit cost of producing the first lot of Fairchild C-82 planes (10 planes) and the unit cost of producing the first lot of Kaiser C-119 planes (14 planes) adjusted on various bases in order to make the figures as nearly comparable as possible, within the limits of the factual differences in the conditions under which the planes were built. Each table shows in detail the basis of the adjustments made. The results of the comparisons may be summarized as follows:

## (A) Fairchild

- |  |               |
|--|---------------|
| (1) Actual unit cost of the first 10 Fairchild C-82 planes, weighing 21,021 pounds each, when they were built in 1944-45. (Source: Transcript, p. 451-1.) .....  | \$1, 867, 591 |
| (2) Adjusted unit cost of the first 10 Fairchild C-82's adjusted for weight of C-119 (28,739 pounds) and increases in labor and material cost indexes, using the methods shown at transcript, pp. 451-21 through 451-32. (See table 1 below.) .....  | 3, 327, 000   |
| (3) Adjusted unit cost of the first 10 Fairchild C-82's adjusted for weight of C-119 and increases in labor and material cost indexes, correcting the methods shown at transcript, pp. 451-21 through 451-32 to more accurately reflect increases in labor and material cost indexes. (See table 1 below.) .....                   | 4, 255, 000   |
| (4) Adjusted unit cost of the first 10 Fairchild C-82's, adjusted for weight of C-119 and increases in labor and material cost indexes, using another method of adjusting for changes in weight and cost indexes which is believed to be more accurate than the adjustments shown in (2) and (3) above. (See table 2 below.) ..... | 4, 337, 000   |

## (B) Kaiser

- |  |             |
|--|-------------|
| (5) Unit cost of the first 14 Kaiser C-119's, amortizing all nonrecurring costs and preproduction expense over 159 planes. (Source: Table entitled "Kaiser Manufacturing Corp. Estimated Cost of First 14 C-119 Airplanes," appearing in Report of Air Force Survey of Feb. 24-27, 1953, introduced into the record as Document No. 2, at p. 405-1 of the transcript.) ..... | 2, 015, 969 |
| (6) Unit cost of the first 14 Kaiser C-119's, amortizing all nonrecurring costs such as project tooling over first 14 planes, but amortizing preproduction expense over 39 equivalent planes completed through date of delivery of 14th plane. (See table 3 below.) .....  | 3, 443, 000 |
| (7) Unit cost of first 14 Kaiser C-119's, amortizing all nonrecurring costs and all preproduction expense against first 14 planes on same accounting basis as Fairchild figures shown above. (See table 3 below.) .....  | 4, 295, 000 |



AIRCRAFT PROCUREMENT

TABLE 1.—Conversion of first 10 C-82's built by Fairchild based on Bureau of Labor Statistics cost indexes

[Reference: 451-21 through 451-32, vol. 5 of transcript]

[All amounts in thousands]

1. Total cost to Government of 10 airplanes without any adjustments. \$18,676  
Breakdown by years (p. 451-22):

1944	\$4,904	
1945	13,772	
1944: Add for weight 25 percent of 4,904	18,676	
Plus	1,226	
	4,904	
Adjusted for weight	6,130	
Add cost rice index 44 percent	2,697	
Adjusted 1944 costs		\$8,827
1945: Add for weight 25 percent of 13,772	\$3,443	
Plus	13,772	
Adjusted for weight	17,215	
Add cost rice index 42 percent	7,230	
Adjusted 1945 costs		24,445
Total adjusted costs		33,272
Average unit cost per airplane		3,327

2. A review of the data submitted by the Bureau of Labor Statistics in the transcript shows that the above method of conversion is incorrect. Appendix A, page 451-30 shows two indexes developed by the B. L. S., one for material and one for wages. From these it is apparent that wages increased much more rapidly than material. Page 451-27 of the transcript contains the following statement by E. I. Eaton of the B. L. S., who developed this data:

"I have not attempted to combine the price and wage data into a single index. This can be done, fairly simply, by assigning relative importances to the price index and the wage index, but we have no basis for such assignment."

In making the conversion shown in 1 above, not only was no attempt made to combine the two indexes into a single weighted index, but the material or lower index was used. Since by far the greater portion of the cost of producing an airplane is represented by wages and salaries, the conversion in 1 above is obviously incorrect.

The C-119 cost experience indicates that approximately 69 percent of the total costs are payroll costs and 31 percent material, supplies and services. Using these percentages to develop a combined weighted index, yields the following results:

Combined index from appendix A:

1944:		
Payroll, 69 percent of 65 (173-108)	45	
Material, 31 percent of 44	14	
Combined, (percent)	59	
1945:		
Payroll, 69 percent of 62 (173-111)	43	
Material 31 percent of 43 (144-101)	13	
Combined, (percent)	56	

TABLE 1. *Conversion of first 10 C-82's built by Fairchild based on Bureau of Labor Statistics cost indexes—Continued*

Combined index from appendix A—Continued

Adjusted costs:

1944:		
Adjusted for weight.....	\$6, 130	
Add cost index, 59 percent.....	3, 617	
1944, adjusted.....	9, 747	
1945:		
Adjusted for weight.....	17, 215	
Add cost index, 56 percent.....	9, 640	
1945, adjusted.....	26, 855	
Total adjusted costs.....		\$36, 602
Average unit cost per airplane.....		3, 660

3. The computation shown in 2 above represents properly the comparable costs based on the indexes developed by the BLS. The wage index developed was based on the average rates in the aircraft industry as tabulated in appendix C, page 451-32 volume 5 of the transcript. This shows the average rate for 1952 as \$1.858, which is considerably lower than the \$2.02 average rate at Willow Run, and for the years 1944-45 as \$1.159 and \$1.191, which is higher than the actual Fairchild rates on the first 10 airplanes of \$1.005. (See exhibit A p. 451-1 vol. 5 of transcript). Using the actual Fairchild and Willow Run rates we get a wage index of \$2.12/1.005 or 101. Based on this index the converted costs of the first 10 C-82's would be as follows:

Combined index:

1944:		
Payroll, 69 percent of 101.....	69	
Material, 31 percent of 44.....	14	
Combined index (percent).....	83	
1945:		
Payroll, 69 percent of 101.....	69	
Material, 31 percent of 43.....	13	
Combined index (percent).....	82	

Adjusted costs:

1944: Adjusted for weight.....	\$6, 130	
Add cost index, 83 percent.....	5, 088	
1944, adjusted.....	11, 218	
1945: Adjusted for weight.....	17, 215	
Add cost index, 82 percent.....	14, 116	
1945, adjusted.....	31, 331	
Total adjusted costs.....		\$42, 549
Average unit cost per airplane.....		4, 255

TABLE 2.—Conversion of cost of first 10 C-82 airplanes built by Fairchild to Willow Run labor rates and 1952 costs

[All amounts in thousands]			
1. Direct labor:			
Fairchild direct labor hours	1,783		
Fairchild direct labor dollars	1,793		
Average rate		\$1.005	
Willow Run average rate		\$2.02	
Percent increase		101	
Adjusted direct labor, 1,783 hours at \$2.02			\$3,602
2. Indirect expense:			
Fairchild costs:			
Overhead	\$3,583		
Flight test	88		
Tooling	8,201		
Reproduction	346		
Engineering	1,667		
General and administration	856		
Total	14,741		
Based on Willow Run costs, in excess of 75 percent of overhead and indirect costs is payroll and charges related to payroll such as social security, compensation insurance, employee benefits, etc. Assume 75 percent.			
75 percent of \$14,741	\$11,056		
Increase based on difference in direct labor rate is 101 percent			
(See 1 above) \$11,056 × 201 percent =			22,222
Indirect expense other than payroll is			
\$14,741 - \$11,056 =	\$3,685		
Increase: Assume 40 percent (index shown on p. 451-30 vol. 5 of transcript shows 44 percent) 140 percent of \$3,685 =			5,159
3. Material:			
Fairchild costs	\$851		
Increase: 40 percent (see 2 above) 140 percent of \$851			1,191
Total revised cost before adjustment for weight			32,174
4. Adjustment for weight:			
Airframe weight of C-82	21,021 pounds		
Airframe weight of C-119	28,739 do		
Increase	7,718 do		
Percent increase		36	
Assume that all the direct labor, and material, and 70 percent of the indirect costs are increased proportionately by the additional weight:			
Direct labor, \$3,602 times 36 percent			\$1,297
Material, \$1,191 times 36 percent			429
Indirect costs, payroll	\$22,222		
Indirect costs, other	5,159		
	27,381		
70 percent	19,167		
\$13,690 times 36 percent			6,900
Total increased cost account of weight			8,626
Total adjusted cost			40,800
5. Profit: \$1,109/\$17,567 = \$40,800, 6.3 percent			2,570
Total			43,370
Average cost per plane			4,337

TABLE 3.—Cost of lot No. 1, 14 C-119 airplanes, Kaiser Manufacturing Corp.

(See attached sheet for source of figures and methods of calculation used in this table)

[All amounts are in thousands of dollars]

	Amount	Unit
Recurring costs: <sup>1</sup>		
Production material.....	\$1,486	-----
Direct labor.....	3,859	-----
Factory burden.....	10,556	-----
Engineering expense.....	1,852	-----
General and administrative expense.....	865	-----
Home office expense.....	243	-----
Portable tools and equipment.....	127	-----
Subcontractors cost.....	4,422	-----
Subtotal, recurring costs.....	23,410	\$1,672
Nonrecurring costs as of Nov. 30, 1952: <sup>2</sup>		
Plant rearrangement.....	933	-----
Partial occupancy costs.....	2,017	-----
Project tooling.....	12,945	-----
Subtotal, nonrecurring costs.....	15,895	1,135
Preproduction expense for first 39 planes through Oct 31, 1952: <sup>3</sup>		
Burden.....	15,776	-----
Administrative.....	1,510	-----
Home office expense.....	285	-----
Portable tools and equipment.....	1,052	-----
Subtotal, preproduction expense (39 planes).....	18,623	-----
Subtotal, preproduction expense (14 planes) (14% of \$18,623).....	6,692	478
Priming parts (cost to Government) <sup>4</sup> .....	1,633	117
Fee (less spares).....	579	41
Total cost.....	48,209	3,443
Alternate if all preproduction expense is applied to first 14 airplanes.....	60,140	4,295

#### COST OF FIRST 14 AIRPLANES

First 14 airplanes out factory, Nov. 12, 1952; first 14 airplanes delivered, Dec. 31, 1952. The first 14 airplanes would have been delivered by Nov. 30, 1952, but the last ones were held at the hangar because of the wing problem at Whirlpool.

<sup>1</sup> Recurring costs, source, comparative report of costs of C-119 airplanes for periods Dec. 30, 1950, through Apr. 30, 1953. Prepared by Sidney Solomon, AF resident auditor at Willow Run, placed in the record at p. 7.

<sup>2</sup> Nonrecurring costs, source, KMC cost records as of Nov. 30, 1952.

<sup>3</sup> Preproduction costs, same as 1 above, column headed as of Oct. 31, 1952, which is the closest date shown to the completion of the 14 airplanes. There are 2 alternate methods shown of distributing the preproduction expense to individual airplanes:

1. Based on charting all production expense through Oct. 31, 1952, to the number of equivalent airplanes (39) completed as of Oct. 31, 1952.

2. Based on charging all such production expense to the first 14 airplanes.

Fairchild did not have preproduction expense of the kind incurred by KMC since it was an established aircraft concern at the time it started producing the C-82. The total amount of preproduction expense charged by Fairchild to the first 10 C-82's was \$345,798. Therefore, it is believed that the first method used is much more equitable for the purposes of comparison. Even this method charges a great deal more of preproduction expense to the first 14 planes (\$6,692,000) than Fairchild had to incur for its first 10 C-82's.

<sup>4</sup> Priming parts, source, table prepared by M. F. Mautnor, supervisory auditor, eastern district headquarters, Auditor General, USAF (Tr., pp. 292-293).

#### APPENDIX I

There follow below representative documents which contain statements by Kaiser-Frazer officials to officials of the Air Force concerning the difficulties being encountered by Kaiser-Frazer in utilizing the technical assistance data being furnished by Fairchild.

The documents appear below in chronological order. They consist of:

(a) Letters from Kaiser-Frazer to Air Force officials, some of them proposing specific methods for solving difficulties arising in utilizing the Fairchild data, and bearing the signature of an Air Force official approving the methods proposed.

(b) Memoranda of conferences attended by representatives of the Air Force, Fairchild, and Kaiser-Frazer, or by representatives of the Air Force and Kaiser-Frazer, relating to the difficulties being encountered in using the Fairchild data. Copies of these memoranda were furnished to resident Air Force officials at

Willow Run and Hagerstown and, in many cases, copies were also furnished to officials of Fairchild.

(c) Memoranda prepared by Air Force officials relating to difficulties being encountered by Kaiser-Frazer in utilizing the Fairchild data, copies of which were either furnished to Kaiser-Frazer at the time or which have since been incorporated in the record of these hearings.

#### INDEX OF DOCUMENTS

- (1) Letter dated February 16, 1951, from John Hallett (K-F) to William G. Cruikshank, captain, USAF, acting AF resident officer in charge at Willow Run.
- (2) Memorandum of conference held at Willow Run on March 22, 1951, attended by representatives of Kaiser-Frazer and Fairchild.
- (3) Memorandum of conference held April 18, 1951, at Willow Run attended by representatives of Kaiser-Frazer and Fairchild.
- (4) Memorandum of conference held May 21, 1951, at Willow Run, attended by representatives of Kaiser-Frazer and Air Force.
- (5) Memorandum dated May 25, 1951, from S. F. Patyrak (K-F) to AF plant representative at Willow Run.
- (6) Memorandum of conference held at Hagerstown on May 25, 1951, attended by representatives of Air Force, Kaiser-Frazer and Fairchild.
- (7) Memorandum dated May 28, 1951, from John Hallett (K-F) to AF plant representative at Willow Run.
- (8) Memorandum dated August 10, 1951, from S. F. Patyrak (K-F) to AF plant representative at Willow Run.
- (9) Memorandum of conference held August 20, 1951, attended by representatives of Air Force, Kaiser-Frazer, and Fairchild.
- (10) Memorandum of conference held at Hagerstown December 21, 1951, attended by representatives of Air Force, Kaiser-Frazer, and Fairchild.
- (11) Memorandum dated January 2, 1952, from T. A. Bedford (K-F) to Air Force plant representative at Willow Run.
- (12) Memorandum dated February 7, 1952, from T. A. Bedford (K-F) to Air Force plant representative at Willow Run.
- (13) Extract from memorandum dated February 14, 1952, from John Hallett (K-F) to Air Force plant representative at Willow Run (the full text of this memorandum is attached to document No. 17 placed in the record by the committee's staff at p. 405-3 of the transcript).
- (14) Extract from report dated February 25, 1952, from Sidney C. Solomon, USAF resident auditor at Willow Run to Auditor General, USAF (the complete report appears at pp. 346-59 of the transcript, and the extract appears at 357 of the transcript).
- (15) Extract from Air Force memorandum of telephone conversation on May 5, 1952, between General Bradley and Edgar Kaiser, introduced into the record of the hearings at page 405-2.
- (16) Extract from letter dated December 18, 1952, from Edgar Kaiser to commanding general, Air Materiel Command, appearing in the transcript at page 536.
- (17) Extract from memorandum dated January 12, 1953, from S. A. Girard (K-F) to Air Force plant representative at Willow Run (the full text of this memorandum appears at pp. 385-394 of the transcript).

FEBRUARY 16, 1951.

Subject: Discrepancies in Fairchild-furnished bill of material.

To: William G. Cruikshank, Captain, USAF, Acting AF Resident, Officer in charge, Kaiser-Frazer Corp., Willow Run, Mich.

We are in the process of ordering parts for the first block of 22 C-119 cargo planes and acquiring raw materials for the fabrication of 64. The only bill of material which we have available is the one furnished to us by the Fairchild Aircraft Division of the Fairchild Engine & Airplane Corp.

On checking this bill of material in connection with the placing of orders, we have been advised by the vendors that there are discrepancies in such bill of material and that it is not entirely up to date. If, therefore, we are to proceed with the placing of orders, there is a possibility that we will acquire materials that will later be found to be obsolete. On the other hand, the proposed schedules for the manufacture of the first cargo planes will be jeopardized if we await the receipt of a fully corrected bill of material from Fairchild.

AIRCRAFT PROCUREMENT

We are presently calling any discrepancies to the attention of Fairchild, obtaining corrections as rapidly as possible and correcting purchase orders in the light of revisions in the bill of materials.

In view of the foregoing, we recommend that we proceed to place orders on the basis of the bill of material which we now have, upon the understanding that no disallowances will be made in costs by virtue of the fact that this procedure may entail purchasing material which later cannot be used in the plane.

If this meets with your approval, kindly indicate on the attached copy of this letter.

(Signed) JOHN HALLETT,  
Executive Vice President and General Manager.

Approved:

(Signed) W. G. CRUIKSHANK,  
Captain, USAF, Acting Resident AF Officer in Charge, United States  
Army Air Force.

(Signed) WM. SHELDON,  
Contracting Officer, United States Army Air Force.

To: Mr. Edgar F. Kaiser, Mr. John Hallett, Mr. S. A. Girard.

From: H. V. Lindbergh.

Time: 10 a. m. to 6 p. m., March 22, 1951.

Place: Mr. Hallett's and Mr. Girard's office, administration building, Kaiser-Frazer Corp., Willow Run, Mich.

Persons present: Mr. Paul J. Frizzell, Fairchild; Mr. W. L. Landers, Fairchild; Admiral Sallada, Fairchild; Mr. A. D. Jairett, Fairchild; Mr. John Hallett, Kaiser-Frazer; Mr. H. V. Lindbergh, Kaiser-Frazer; Mr. Harvey Smith, Kaiser-Frazer; Mr. O. E. Johnson, Kaiser-Frazer; Mr. L. S. MacKay, Kaiser-Frazer; Mr. Ralph Isbrandt, Kaiser-Frazer; Mr. Harvey Anschuetz, Kaiser-Frazer.

Following are notes of a meeting held at Willow Run on March 22, 1951.

#### PURPOSE OF MEETING

To discuss matters of a general and specific nature as submitted by Mr. Landers and to exchange data on the progress of the C-119 program and the operations by both parties thereunder.

#### GENERAL

##### 1. Amendments to the technical-assistance agreement

It was agreed that amendments to the technical-assistance agreement would be handled in the form of supplements. If Fairchild proposes a change or amendment to the agreement, it will draft a letter which will be submitted to Kaiser-Frazer and any agreement between the parties (as an amendment to the contract) will become a supplement to the master agreement.

##### 2. "Restricted" category for technical-assistance agreement

Mr. Landers expressed the desire to have the technical-assistance agreement become a restricted document. This will be discussed with Wright Field.

##### 3. Technical assistance and other data on aircraft changes beyond ship 10450

Mr. Landers pointed out that Kaiser-Frazer would receive from Fairchild all of the data that Kaiser-Frazer will need in connection with master-control record changes beyond ship 10450. There are some 53 MCR's listed as of this date which Kaiser-Frazer must incorporate in its first airplane (MCR's through No. 315). Mr. Landers indicated that on the main items, the dates for receiving such information would be as follows: R-3350 engine cowling, April 15; hydraulic landing gear, April 15; R-3350 engine installation, May 15.

##### 4. Stop orders

Mr. Landers indicated that Fairchild would continue to issue stop orders and that, upon receipt of such an order, Kaiser-Frazer should stop work on that part or section of the aircraft affected by the stop order. Following the stop order, the new information would be supplied by Fairchild in the following sequence: (a) An AMR (advance material release); (b) an advanced engineering release; (c) production engineering release.

Mr. Landers suggested that the technical-assistance agreement be amended so that provision is made for the procedure on stop orders.

*5. Indexing schedule*

A discussion was held on the indexing schedule which had been furnished by Mr. Landers to Mr. Smith. The discussion brought out the reasons why Kaiser-Frazer might deviate from the master indexing schedule as originally submitted by Fairchild—among which reasons were such items as geography, local labor conditions, management personalities, equipment, and facilities at Willow Run, etc:

*6. The Omaha package and preliminary prints*

A discussion was held at which time it was pointed out that because engineering drawings of an up-to-date nature are flowing into Willow Run, the Kaiser-Frazer engineering department will attempt to pull in all of the preliminary drawings and data which have been distributed from the Omaha mobilization package and replace the preliminary information with the later data—this procedure to be accomplished starting Monday, March 26, 1951. In the discussion it was pointed out that insofar as total number of drawings is concerned, there are some 4,600 that will remain valid and intact even though they are not recent in origin; and there are some 4,600 drawings which will be distributed reflecting the engineering data between ships Nos. 406 and 450; and there are some 700 drawings involved in the MCR changes to date beyond ship 10450.

*7. Fairchild personnel to Willow Run*

Mr. Lindbergh brought up the point that certain department heads at Willow Run would like to have Fairchild personnel at Willow Run in advance of the June date specified by the technical-assistance agreement. This was taken under advisement and will be discussed further by Messrs. Frizzell, Landers, and Lindbergh at Hagerstown after the department heads at Willow Run have furnished a schedule of their wishes to Mr. Lindbergh.

*8. Long-wing airplane masters*

Mr. Landers pointed out that Fairchild is going to build a prototype only on the long-wing airplane and he wished to have it known that no masters would be constructed.

*9. Subcontracting policy*

Mr. Landers inquired as to the Kaiser-Frazer policy on subcontracting. This was explained by Mr. Harvey Smith who reviewed the reasons behind the selection of the subcontractors and their die vendors. It was pointed out that location, and organization, and relationship of one part of the aircraft to another, were some of the factors involved in the selection of Kaiser-Frazer subcontractors.

*10. Purchasing problems \* \* \* 22 ships and beyond*

Mr. MacKay called attention to a problem of procurement of the purchased parts for the first 22 aircraft to be built by Kaiser-Frazer. He had had previous assurance that the purchased parts for the first 22 aircraft could be supplied by Fairchild's vendors, and he had just received a letter to the effect that this would not be possible. Mr. Landers and Mr. Frizzell agreed to look into this matter in the next few days and a further meeting is scheduled at Hagerstown for Tuesday, March 27, 1951, at which time a decision on 22 ship-sets worth of purchased parts and a decision on the long-range procurement involving sources in three categories (A, B, and C) will be reached.

*11. Stop order on Air Associates valves*

Mr. Landers issued a verbal stop order to Mr. Ralph Isbrandt on the use of Air Associates, Inc., valves.

*12. Personnel training at Hagerstown*

Mr. Lindbergh pointed out that the training courses are beginning to take effect and that the number of people under training is increasing. He also pointed out the categories of visitors to Hagerstown are forming a pattern into these categories:

- (a) Trainees (foremen and general foremen 3 to 20 days).
- (b) Subcontractors and vendors and die men.
- (c) Other Kaiser-Frazer visitors (1 to 3 days for general observation or specific information compilation).
- (d) Resident representatives.

He also pointed out to Mr. Landers that the visitors provided for in the technical assistance agreement totaled approximately 70 during March and during April

and that on any 1 day at present, only 20 to 25 visitors are at Hagerstown. Mr. Landers commented on the difference between trainees and other visitors \* \* \* and pointed out the problems at Fairchild occasioned by visitors tying up supervision. Insofar as trainees is concerned, Mr. Landers stated that they were of no problem to Fairchild and almost any number would be satisfactory.

*13. Visitors from Kaiser-Frazer to Fairchild*

Mr. Landers requested, and the Kaiser-Frazer men present agreed to give, 1 week's notice prior to visits from Willow Run to Hagerstown.

*14. Control master schedule*

Mr. Landers indicated that he had requested a control master schedule from Kaiser-Frazer and requested a date from Willow Run as to when this schedule would be available. (Will Mr. Harvey Smith please note.)

*15. Shop master control points*

Mr. Landers stated that he had talked to Major Barclay at Wright Field in connection with the revision to exhibit D of the technical-assistance agreement that had been previously requested by the Air Force. The Air Force had previously requested a nomenclature or brief word description of the parts controlled by shop masters to correspond with the part numbers in exhibit D. Mr. Landers indicated that Major Barclay was agreeable to receiving this information as running or continuing data from time to time as these shop master points were determined by both Kaiser-Frazer and Fairchild. Mr. Lindbergh pointed out that the technical-assistance agreement had been approved by the Air Force subject to receiving the enlarged exhibit D and that this stipulation must be clarified to conform to Mr. Landers' understanding.

*16. EAI's (engineering advance information)*

Mr. Landers stated that he had also talked to Major Barclay about EAI's and had agreed that Kaiser-Frazer would receive engineering information on ship 10450 plus the MCR data as requested to this date by the Air Force, plus engineering data on new MCR's that might be requested before Kaiser-Frazer produces its first ship. Beyond this any new EAI's sent to Kaiser-Frazer would be those of a major nature only.

*17. Omaha mobilization package*

Mr. Landers pointed out that information is being compiled and will be sent to Willow Run which will bring the Omaha package up to date through ship 10449. He stated that it is Fairchild's wish that this information be inserted in the Omaha package together with the information that is being supplied on the MCR's beyond ship 10450, so that the Omaha package will contain data corresponding to the No. 1 airplane produced by Kaiser-Frazer. It is Fairchild's wish that this Omaha package be kept intact, ready for shipment to another location, at some indefinite time in the future.

*18. Admiral Sallada*

Mr. Frizzell acquainted Mr. Hallett with the fact that Admiral Sallada had been employed by the Fairchild Engine & Airplane Corp. and it is Fairchild's wish that the admiral be stationed at Willow Run starting next week. Admiral Sallada will have duties similar to Mr. Paul J. Frizzell, who will remain at Hagerstown, Md., and Washington, D.C.

*19. General*

Mr. Harvey Smith assured Mr. Landers that Kaiser-Frazer is starting its program, using the data transmitted by Fairchild and using the same breakdown of the airplane and the same control points, etc., at the start of the program. He pointed out that certain modifications have and will become necessary in the Willow Run and the Willow Run subcontractor's operations in order to take the greatest advantage of the facilities and organization and other local conditions at these locations. Mr. Smith also pointed out that the Fairchild indexing schedule was being followed up to a certain point, but that modifications based upon local Willow Run conditions would be made to enable Kaiser-Frazer to meet, and beat, if possible, the schedules as furnished by the Air Force.



To: Mr. Edgar F. Kaiser  
 Mr. John Hallett  
 Mr. S. A. Girard  
 From: H. V. Lindbergh  
 Time: Wednesday, April 18, 1951, 1 p. m. to 6 p. m.  
 Place: Mr. S. A. Girard's office, Administration Building, Kaiser-Frazer Corp., Willow Run, Mich.  
 Persons present: Mr. Paul J. Frizzell, Fairchild  
 Adm. H. B. Sallara, Fairchild  
 Mr. W. L. Landers, Fairchild  
 Mr. A. D. Jarett, Fairchild  
 Mr. John Hallett, Kaiser-Frazer  
 Mr. S. A. Girard, Kaiser-Frazer  
 Mr. H. V. Lindbergh, Kaiser-Frazer  
 Mr. Harvey Smith, Kaiser-Frazer  
 Mr. Ralph Isbrandt, Kaiser-Frazer.

Following are notes of a meeting held at Willow Run on Wednesday, April 18, 1951, with Fairchild and Kaiser-Frazer personnel, on matters concerning the C-119 program.

#### PURPOSE OF MEETING

To review problems of mutual interest in connection with the C-119 program.

#### GENERAL

1. Mr. Harvey Smith presented typical spread sheets on which Kaiser-Frazer personnel is tabulating all of the C-119 part numbers together with pertinent information, such as whether or not Kaiser-Frazer has engineering drawings, tool design drawings, work orders, spread sheets, etc., in connection with each part. It is estimated that these spread sheets will number about 100 part numbers on each sheet—and the purpose of the sheets is to point out problems that exist in connection with each part.

It was decided that following the estimated completion date of the 400 spread sheets, next Wednesday, April 25, Mr. Smith would send to Hagerstown approximately 15 men (representatives of Kaiser-Frazer, its subcontractors, die and fixture shops, etc.) for the purpose of working with the Fairchild personnel to exactly define or answer the questions represented by the problems on the spread sheets. Included in the aforementioned visitors would be photographers and sketch men.

2. With reference to the major assemblies, subassemblies and detail parts for 14 equivalent aircraft which will be furnished to Kaiser-Frazer under the technical assistance agreement, it was decided the inspection logs and packing lists on these shipments would be sent from Hagerstown to Harvey Smith at Willow Run, and to individuals that will be specified at each of the three major subcontractors' plants. Mr. Smith and Mr. Isbrandt are to coordinate this procedure and furnish Mr. Lindbergh with the specific names and exact procedure. Mr. Landers pointed out the importance of receiving and keeping the inspection logs intact at all times in connection with these aircraft parts.

3. Detail parts: A discussion was held on the 9 ship-sets worth of detail parts which constitute a portion of the 14 equivalent aircraft to be furnished by Fairchild to Kaiser-Frazer under the technical assistance agreement. On detail parts, it was decided that enough parts to construct 2 complete airplanes (minus, of course, the GFP and certain other items which are excluded by letter amendment to the contract) will be shipped during April to Kaiser-Frazer. The shipment of these two airplanes worth of parts will be broken into four packages—and will be routed to Willow Run, Greenville, St. Joseph, and Detroit in accordance with a schedule previously furnished to Fairchild by Kaiser-Frazer.

It was also decided that the 7 ship-sets worth of detail parts scheduled under the contract for May and June delivery would also be shipped in 4 packages, broken down between Willow Run and the 3 locations of Kaiser-Frazer's subcontractors, in accordance with the schedule previously furnished by Mr. Smith, which describes the items to be furnished by each subcontractor and by Willow Run, respectively.

4. Description of major components, subassemblies and detail parts: It was decided that no additional descriptions of the items making up the 14 equivalent aircraft to be furnished by Fairchild to Kaiser-Frazier, would be requested of Fairchild. It was pointed out that the assembly parts list and the inspection signoff logs would provide these descriptions.

It was also decided that shipment of these 14 equivalent aircraft would be made as per Mr. Harvey Smith's letter wherein it is specified as to the parts which will be sent to the Willow Run plant and other plants of the three major subcontractors.

5. Control masters: The procedure as respects control masters was reviewed and it was pointed out that Kaiser-Frazer would furnish a schedule of its requirements for receiving and using Fairchild control masters—and Kaiser-Frazer's schedule would be reviewed and coordinated by Fairchild and a program developed by mutual agreement which would handle this matter. It is anticipated that these tooling control masters will be shipped from Hagerstown to Willow Run accompanied by Fairchild's inspector and after used at Willow Run to check with Kaiser-Frazer's shop masters and jigs and fixtures, the Fairchild control masters will be returned to Hagerstown.

6. Tooling and shop templates: It was decided that the duplicating or compounding of tooling templates would be handled by Kaiser-Frazer in a manner specified by Mr. Harvey Smith. Mr. Smith has plans whereby tool or fixture builders, such as Federal engineering would duplicate the individual templates furnished from Hagerstown to Willow Run to Federal, and would supply Willow Run with duplicates of the templates as required.

7. Amendment No. 2 to the technical assistance agreement: Mr. Lindbergh requested an explanation by Mr. Landers of the amendment 2 to the technical assistance agreement which has been proposed by Fairchild and which provides a listing of items which Fairchild wishes to exclude from the 14 equivalent aircraft to be furnished to Kaiser-Frazer by Fairchild.

Mr. Landers reviewed the list of items attached to the letter amendment 2 and stated that all of the items were excluded because they were items which would not be incorporated in the first Kaiser-Frazer aircraft. For example, the list includes parts for the current electrical-actuated landing gear and the current R-4360 engine \* \* \* whereas, the first Kaiser-Frazer aircraft will have a hydraulically actuated landing gear and R-3350 engines.

8. General operations: A discussion was held as to the operations in general between Willow Run and Hagerstown and covered such points as visitors, personnel, trainees, correspondence, etc. Specific points were covered and agreed to which will insure that a streamlined, rapid, and efficient means of continuing the exchange of information and data between Hagerstown and Willow Run will be in effect at all times.

#### INTEROFFICE CORRESPONDENCE

MAY 22, 1951.

To: See below.  
From: S. F. Patyrak.  
Subject: Minutes of meeting May 21, 1951.

#### IN ATTENDANCE

For K-F:

Messrs. John Hallett, M. Miller,  
S. Girard, H. V. Lindbergh,  
S. F. Patyrak, Keith Covelle.

For Air Force:

Maj. C. F. Barclay, Maj. Ray C.  
Ulrey, Capt. F. P. Bretney, Lt.  
G. G. Whipple, Paul Pate.

#### *Review of outstanding MCR's in connection with the C-119 program*

The outstanding MCR's were reviewed as to status and relative priority of incorporation in the first airplane to be built Willow Run. Lieutenant Whipple informed that revised specification R-110-000I dated May 4, 1951, is to be included in letter of contract by amendment. This specification includes all outstanding MCR's which are to be incorporated into the first production K-F airplane. Lieutenant Whipple further indicated that there would be a few additional MCR's over and beyond this specification which will be mandatory on the first airplane. Such MCR's will be included upon notification to K-F through letter of contract amendment or CCN.

The matter of the general status of the MCR's under the specification of May 4 was discussed and it was pointed out that some of the MCR's are in the process of design, others have been approved by Fairchild and as yet have not been approved by Wright Field, and on the remainder, design and approvals have been obtained from Fairchild and Wright Field. The problem of procurement of production material and tooling was brought up insofar as incorporation of such unprocessed MCR's are concerned. After discussion, Major Barclay stated that in the interest of expediting the program, K-F is to proceed and com-

mit for tooling and material in such instances on advanced information and advanced design drawings. He further suggested that for contractual coverage a letter should be forwarded to the contracting officer, Captain Bretney, indicating such procedure and Captain Bretney stated that he would approve the proposed procurement of tools and materials on advanced drawings.

*Coordination of 14 equivalent ships worth of parts with the MCR's as set forth in specification R-110-0001 dated May 4, 1951*

K-F pointed out that since the 14 units, in many instances, will be shipped ahead of the effectivity of some of the MCR's in the basic specification, such material will not be of a configuration as required for delivery of the first airplane by K-F to the Air Force. Major Barclay suggested that it would be desirable for K-F to obtain an understanding with Fairchild to furnish, wherever possible, modification kits for these units after they have been delivered in order to incorporate the MCR's. He further indicated that the original intent of the agreement with regard to the technical assistance agreement was that Fairchild was to furnish complete airplanes and as nearly up to specification as possible.

It was further understood that on certain MCR's it may not be practical to effect the MCR in the 14 sets of parts from Fairchild and in such cases K-F will request a deviation in effectivity.

*Acceptance of technical data from Fairchild under the technical assistance agreement*

Mr. Miller requested clarification as to what records and what information the Air Force would require with regard to verification of acceptance of technical data under the agreement with Fairchild. Major Barclay stated that the Air Force will depend upon the information furnished by Fairchild and screened by the contracting officer at Fairchild for verification of what was shipped to K-F. This will particularly apply to tangible and specific items such as blueprints, reports, parts, etc. Where intangible items are being furnished, the contracting officer at Fairchild likewise will verify the rendering of such services to K-F. Thus, it appears that K-F will not be required to maintain detailed and comprehensive records to verify the receipt of technical assistance data or services under the agreement between Fairchild and K-F.

*Mobile training unit for the C-119F airplane*

K-F requested whether it would be possible to obtain a mobile training unit in connection with preproduction training of K-F personnel. Lieutenant Whipple stated that there is a very urgent need for all such units that are currently being provided for the C-119C airplane. However, it appeared that it might be possible to avail K-F of such a unit, which would be the second one built for the C-119F model.

*Industrial mobilization planning data*

All information supplied by USAF to K-F from industrial mobilization planning file shall become a part of engineering data and manufacturing data, along with such data as will be received from Fairchild under the technical assistance agreement. No separate file shall be maintained. A letter confirming the above agreement reached with Captain Packard of USAF is to be written by K-F to USAF through contracting officer.

*Results of meeting*

(a) The Air Force will forward a revised specification to K-F by means of a letter of contract amendment.

(b) K-F is to forward and obtain approval from the contracting officer at Willow Run (Captain Bretney) a letter of understanding with regard to proceeding with commitment of tooling and material on the basis of advance engineering data.

(c) K-F is to obtain agreement from Fairchild with regard to furnishing of modification kits for incorporation of MCR's on the first 14 units so as the first airplanes being delivered from Willow Run will be in accordance with the specification of May 4.

(d) K-F will not be required to be responsible for maintenance of records other than what normally is performed in the course of usual business in connection with acceptance of technical data from Fairchild.

(e) Air Force will attempt to obtain a mobile training unit in connection with the C-119F airplane.

(f) K-F to forward letter to USAF on subject of industrial mobilization planning data.

Copies to: Maj. Ray C. Ulrey, Capt. F. P. Bretney, Keith Covelle, E. M. Craig, Earl Gilman, Steve Girard, J. F. Greenwald, S. H. Hailey (3), John Hallett, C. M. Hollis, R. H. Isbrandt (6), O. E. Johnson, H. V. Lindbergh (3), R. J. Jespersen, L. S. MacKay, M. Miller, W. T. Nilsson, E. R. Ordway, J. F. Reis, C. W. Rodgers, G. A. Rogers, H. R. Smith (4), C. Snowden, John Tacke, W. D. Whiteman.

MAY 25, 1951.

Subject: Request for authorization of procurement of production material and tooling from advanced design drawings covering unprocessed MCR's in specification R-100-000I dated May 4, 1951.

To: AF plant representative, Kaiser-Frazer Corp., Willow Run, Mich.  
(Attention: Capt. F. P. Bretney.)

In accordance with discussions and agreement with Maj. F. C. Barclay at meeting May 21, we are requesting authorization to proceed with procurement of production material and tooling from advanced design drawings which cover unprocessed MCR's, which MCR's are listed in specification R-100-000I dated May 4 and will be made part of supply contract AF 33 (038)-18481.

It is our understanding that the majority of MCR's as listed in specification R-100-000I dated May 4 have been processed and have been approved by AMC Wright Field. However, there are a few MCR's which have not been completely processed and in those cases, unless the contractor is authorized to proceed on the basis of preliminary and advanced engineering drawings and data, the delivery schedules for the C-119F airplane as set forth in contract No. AF 33 (038)-18481 may be adversely affected.

It is also our understanding that such unprocessed MCR's are few in number and in relation to the overall monetary consideration of the supply contract, the cost factor for such unprocessed MCR's is very small. However, they do affect the entire program and the overall cost consideration. Major Barclay recommended that K-F proceed with tooling and procurement of production materials on such unprocessed MCR's on the basis of using preliminary engineering data.

This procedure was recommended by Major Barclay in order not to delay the delivery of C-119 airplanes as set forth in schedule in the letter to AF plant representative, subject: request for authorization of procurement of production material and tooling from advanced design drawings covering unprocessed MCR's in specification R-100-000I dated May 4, 1951.

Supply contract. It is our understanding that the costs incurred in the procurement of tooling and production material in those instances will be reimbursed under the existing letter contract No. AF 33 (038)-18481.

May we have your approval in this matter.

For Kaiser-Frazer Corp.:

S. F. PATYRAK, *Contract Administrator.*

Approved:

F. P. BRETNEY,  
*Captain, USAF, Contracting Officer.*

cc: Messrs. E. M. Craig, Earl Gilman, C. M. Hollis, R. H. Isbrandt, R. J. Jespersen, O. E. Johnson, E. R. Ordway, L. S. MacKay, J. F. Reis, H. R. Smith, J. Hallett, S. A. Girard, M. Miller, D. Hammond, W. T. Nilsson, J. F. Greenwald.

MAY 29, 1951.

To: Messrs. Edgar F. Kaiser, John Hallett, S. A. Girard.

From: H. V. Landbergh.

Persons present: Lt. Col. S. E. Cleveland, USAF, Hagerstown; Maj. Charles F. Barclay, USAF, Wright Field; Lt. G. G. Whipple, USAF, Wright Field; Mr. Leland B. Firman, USAF, Hagerstown; Mr. R. W. Kellhofer, FAD, Hagerstown; Mr. L. Fahnestock, FAD, Hagerstown; Mr. Ralph Isbrandt, K-F, Willow Run, Mr. H. V. Lindbergh, K-F, Hagerstown.

Place of meeting: Lt. Col. S. E. Cleveland's office, Plant No. 4, Fairchild Aircraft, Hagerstown, Md.

Time of meeting: 2 p. m. on Friday, May 25, 1951.

Following are notes of a meeting at Hagerstown on May 25, 1951:

#### PURPOSE OF MEETING

To review and discuss MCR's and other engineering data in connection with the C-119F aircraft that Kaiser-Frazer is to build at Willow Run.

1. Lieutenant Whipple pointed out that specification No. R110-000I dated May 4, 1951, would be released immediately as the official specification to be

used by the Air Force, Kaiser-Frazer, and Fairchild in connection with the first Kaiser-Frazer C-119F aircraft.

2. Lieutenant Whipple pointed out that MCR 346-2 will be deleted from the Kaiser-Frazer specification for the first 14 aircraft.

3. Lieutenant Whipple pointed out that MCR 300-1 applies to the first 14 Kaiser-Frazer aircraft only.

4. Lieutenant Whipple pointed out that MCR 198 is a vendor specification item, and this MCR 198 will remain in the Kaiser-Frazer specification.

5. Lieutenant Whipple pointed out that MCR 315 will not apply to the Kaiser-Frazer first aircraft.

6. Mr. Fahnestock stated that he was agreeable to supplying advanced engineering information from Fairchild to Kaiser-Frazer in reproducible form.

7. It was decided by all concerned that MCR 288 and MCR 337 would be released to Kaiser-Frazer on a piecemeal basis so that progress could be made in incorporating these MCR's in Kaiser-Frazer aircraft as soon as possible.

8. Lieutenant Whipple pointed out that MCR 278 will be coming back into the picture very shortly and would probably be required on Kaiser-Frazer aircraft at an effectivity point to be established later.

9. Mr. Fahnestock pointed out that MCR's 223, 224, and 259 would be completed early in the week of May 28 and would be released to Kaiser-Frazer in piecemeal fashion and in reproducible form.

10. A complete run down of all of the MCR's was made and the dates on which information will be available, and the general status of the MCR's, as discussed at the meeting, is reflected on the attached schedule A.

NOTE.—All of the above information in paragraphs 1 through 10 and the information on schedule A attached is for general discussion and information purposes only. None of this information should in any way change or affect the official listings of MCR's as released to Kaiser-Frazer from time to time by the Air Force or Kaiser-Frazer Engineering Division.

SCHEDULE A.—MCR status as indicated May 25, 1951

Number	Title	Tentative release date	Latest estimate date out of engineering	Comment	Date furnished complete
130	VHF antenna.....	May 22	May 18	-----	Sept. 24, 1951
193	Fuselage beams—tie to skin.....	do.....	May 25	-----	Feb. 21, 1952
223	Landing gear.....	do.....	-----	See note 1.....	May 1, 1952
224	do.....	May 25	-----	do.....	Feb. 6, 1952
259	R-3350 engine.....	do.....	-----	do.....	Jan. 17, 1952
268-2	Safety belt.....	May 30	-----	See note 2.....	-----
276	Sw. pressure sensing.....	May 22	May 17	-----	June 13, 1951
282	Fuel pressure drop.....	do.....	May 16	-----	July 12, 1951
283	Nose landing gear.....	May 25	May 24	-----	Nov. 17, 1951
287	Ditching hatch.....	May 30	-----	See note 2.....	Dec. 3, 1951
288	AN/ARC-27 radio.....	June 15	-----	Piecemeal basis.....	Nov. 16, 1951
290	3350 ground analysis.....	May 30	-----	See note 2.....	Nov. 28, 1951
291	Sim. Inst. Fly equipment.....	June 10	June 10	-----	Apr. 8, 1952
296	Elevator control locks.....	-----	-----	See note 2.....	Nov. 28, 1951
298	Fuselage side panels.....	-----	-----	See note 3.....	Mar. 31, 1953
300-1	Tail beams, reinforced.....	-----	-----	Released.....	Apr. 26, 1951
300-2	do.....	May 29	May 23	-----	June 11, 1951
309	Fuselage prop plane skin.....	May 22	May 24	-----	June 13, 1951
315	Overhead panel light.....	-----	-----	Not in K-F No. 1.....	-----
318	Gyro instrument adapters.....	June 10	June 10	-----	Oct. 5, 1951
332	Rear cargo door hinges.....	June 15	June 15	See note 2.....	Sept. 5, 1951
333	Load adjusters.....	-----	May 29	-----	June 26, 1951
334	Fuselage rear cargo jacks.....	May 22	May 24	-----	Dec. 3, 1951
345	Main landing gear.....	-----	do.....	-----	July 9, 1951
346-1	Mod. vert. tail.....	(1)	(1)	See note 4.....	May 6, 1951
346-2	do.....	June 20	June 20	do.....	Nov. 24, 1951
353	Nose landing gear.....	-----	-----	-----	-----
278	do.....	-----	-----	To be reopened.....	Nov. 24, 1951
337	AN-ARN-5B glide path recorder.....	-----	-----	See note 5.....	Aug. 15, 1951
225	Hydraulic wing flap actuator.....	-----	-----	Parts under test May 25.....	Dec. 27, 1951

<sup>1</sup> Not applicable.

#### NOTES

1. To be released on piecemeal basis, first part of week of May 28.
2. Proposal ready to send to Wright Field May 25.
3. AF approved FAD proceeding as of May 25.
4. Not in specifications for 1st KF C-119F, but on "A" priority list.
5. MCR 337 proposal not ready as of May 25.

MAY 28, 1951.

Subject: Purchase of parts and material, Fairchild cargo plane C-119, supply contract AF 33(038)-18481  
To: AF plant representative, Central Air Procurement District, Kaiser-Frazer Corp., Willow Run, Mich.  
Attention: Capt. F. P. Bretnoy.

This will supplement the writer's letter of February 16, 1951, to W. O. Cruickshank, captain, USAF, concerning the purchase of parts and raw materials for the first block of 22 and 66 ship-sets respectively.

Since the date of the above-referenced letter, Kaiser-Frazer with FAD's assistance, has prepared an index schedule, which in turn portrays the manner in which Kaiser-Frazer will be required to procure and receive raw material and parts consistent with scheduling of the end product. (See exhibit A attached.)

Insofar as it has been possible to do so, Kaiser-Frazer has essentially completed the first buy of 66 ship-sets of raw material and 22 ship-sets of purchased parts following the procedure outlined in the letter dated February 16 above.

By reference to exhibit A, it will be noted that procurement of 96 ship-sets of raw must be completed in May and 154 ship-sets of parts completed in June. In the interest of getting materials and parts on order as quickly as possible, it is intended that we will commence procurement of the above quantities immediately upon approval of this letter.

To accomplish the procurement activity with the least possible delay, Kaiser-Frazer has negotiated a new agreement with FAD relative to the use of their sources, as set forth in FAD's letter, reference MD-434, attached hereto. Accordingly, we respectfully request permission and approval from the United States Air Force to:

(1) Permit Kaiser-Frazer to follow the same procedure outlined in the writer's letter referred to in paragraph 1 above, to apply to the unordered balance of our contract requirements on purchased parts and raw material, plus scrap and spares.

Norm.—It should be noted that the risk of ordering obsolete or noncurrent parts under this arrangement is considerably minimized over the risk involved in our previous purchasing arrangement, in the following manner:

(a) Whereas our initial buy was made from the Omaha bill of material, the unpurchased balance of our contract requirements will be purchased against the bill of material prepared by FAD for ship No. 10450, corrected to Kaiser-Frazer engineering parts releases as quickly as they are received by our planning department. Approximately 65,000 engineering part releases are required for the entire plane, of which approximately 48,000 have been processed as of this date. This "correction" procedure is now in force and we expect it should be completed early July.

(b) Under the proposed procurement arrangement, Kaiser-Frazer will be purchasing the greater majority of parts and material for the entire plane from FAD sources, thus giving Kaiser-Frazer orders the benefit of all engineering information given to such vendors by FAD.

(2) Be relieved of the requirement providing for competitive bidding on all items that FAD restricts use of its sources for quantities less than Kaiser-Frazer's contractual requirements (plus scrap allowance and spares): it being understood that K-F will use diligence in selection of sources, and usual standard practice employed in analyzing all negotiated prices by K-F purchase analysis department. It is further understood that K-F will exert its best efforts to include a re-determination provision in all purchase orders placed in this manner.

(NOTE.—For the purpose of clarifying paragraph 2 above, please refer to exhibit A which points out the necessity of making immediate commitments. For example, in order to provide K-F with its requirements of castings consistent with schedule of deliveries shown in exhibit A beyond 66 ship sets, and recognizing the essentiality of a 6-month lead time as shown in exhibit C, it is imperative that sources for these items be selected at once.)

Your immediate consideration and approval of this request will materially aid us in providing raw materials and parts for the production of C-119 planes, as now scheduled.

Very truly yours,

JOHN L. HALLETT,  
*Executive Vice President and General Manager.*

Approved by:

F. P. BRETNEY,  
*Captain, USAF, Contracting Officer.*

Kaiser-Frazer Corp., Willow Run, Mich.  
cc: Mr. J. S. Arnold, Capt. F. P. Bretney (2), Mr. S. A. Girard, Mr. J. F. Greenwald, Mr. C. M. Hollis, Mr. R. J. Jespersen, Mr. O. E. Johnson (6), Mr. E. R. Jones, Mr. L. S. MacKay (6), Mr. M. Miller, Mr. E. R. Ordway, Mr. J. F. Reis, Mr. R. S. Rice, Mr. F. R. Schroeder, Mr. H. R. Smith (3), Mr. J. Tacke, Maj. R. C. Ulrey (2).

KAISER MANUFACTURING CORP.,  
*Willow Run, Mich., August 10, 1951.*

Subject: Rework of K-F Tooling Furnished to Subcontractors under Supply Contract No. AF 33(038)-18481  
To: AF Plant Representative, Kaiser Manufacturing Corp., Willow Run, Mich.  
Attention: Capt. F. P. Bretney

This is to confirm discussions of August 10 regarding certain instances in which KMC is furnishing incomplete or improperly constructed tools such as assembly fixtures, etc., to its major subcontractors. Because of the inaccuracy or lack of engineering information available from Fairchild Aircraft Division at the time these tools were built they must, in many cases, be reworked to produce satisfactory parts. This initial rework will consist generally of revisions in design and construction of the tools, tryout and adaptation, as well as the incorporation of such engineering changes as are effective in No. 1 piece where such information has not been relayed to our original tooling vendor.

The purpose of this memorandum is to confirm our understanding that all charges for such work are properly reimbursable by the Air Force under the Supply Contract.

For Kaiser Manufacturing Corp:

S. F. PATYRAK,  
*Contract Administrator.*

Approved:

F. P. BRETNEY,  
*Captain USAF, Contracting Officer.*

INTER-OFFICE CORRESPONDENCE

To: Memorandum for files.  
From: S. F. Patyrak.  
Subject: Joint meeting of Fairchild Aircraft Division, Kaiser Manufacturing Corp., and Air Force representatives, on Thursday, August 9, 1951.

AUGUST 20, 1951.

IN ATTENDANCE

Fairchild:  
Paul J. Frizzell  
A. D. Jairett  
C. A. Berthiaume  
KMC:  
L. K. Covelle  
S. A. Girard  
John Hallett  
R. H. Isbrandt  
O. E. Johnson  
H. V. Lindbergh  
S. F. Patyrak  
H. R. Smith

Air Force:  
Col. F. E. Cleveland  
Maj. Wm. H. Dowd  
L. B. Firman  
Capt. G. T. Gorman  
Col. W. S. McDuffee  
Lester J. Marts  
Lt. Col. W. F. Nielson  
Lt. H. W. Smith  
Maj. Ray C. Ulrey  
Lt. G. L. Westlund

Col. S. E. Cleveland, *Chairman*

Colonel Cleveland opened the meeting by stating that he desired to discuss a number of items in connection with the KMC C-119 contract. He further commented that he was not attempting to dictate or to interject any policies; however, he would like to discuss those items with the understanding that as a result of such discussion, they may be considered as suggestions, helpful criticism and aid in assistance in the performance of the overall C-119 program.

*Engineering release cards.*—Colonel Cleveland inquired of KMC representatives why engineering release cards were being prepared for each part and item in the airplane and why it was necessary to have this additional paperwork, which perhaps might be adversely affecting the program. Mr. Hallett referred the matter to Mr. H. R. Smith for preliminary discussion and requested that Mr. Isbrandt, the chief engineer, be located so that he might attend the meeting. In the interim, Mr. Smith pointed out to the Air Force representatives that it has been the policy of K-F, in its automotive production, to have engineering release cards for each part. The purpose was to make the right part at the right time and maintain the necessary control in connection with the making of such parts and assemblies. Mr. Berthiaume inquired why was it necessary to have an individual release card for each part, since it was his experience that in instances of assembly drawings at the Hagerstown plant, all that was necessary was one release card for a complete assembly drawing. At this point Mr. Isbrandt entered the meeting and the matter of the necessity for the use of engineering release cards was referred to him for comment. Mr. Isbrandt stated that it has been his experience that to effectively control manufacturing and procurement, individual release cards for individual parts are necessary. He stated it is a matter of organizational policy but from his experience, a release card describes to the procurement and manufacturing divisions the part that is to be made, and if this description is left to the interpretation of the procurement or manufacturing divisions, many errors and much time is lost. He further commented that it is the engineering department's responsibility to adequately describe the part or parts that are to be manufactured. Mr. Hallett then stated that the procedure for issuing release cards for individual parts, in the final analysis, will prove out to be a much faster and quicker way of accomplishing the task, particularly since the K-F organization had been accustomed, from its automotive production, to the use of individual release cards for individual parts.

*Release of parts to major subcontractors.*—Colonel Cleveland inquired whether all of the major subcontractors are fully informed as to what parts they are going to build and assemble. Mr. Berthiaume inquired whether the engineering release system is such that it "calls out" all of the items to be built by a subcontractor. He pointed out that the drawings in many instances do not indicate all of the parts to be manufactured, particularly attaching parts, which are not shown on the assembly drawings but are indicated in the construction airplane drawings. Since it was his understanding that the parts release cards are being prepared off the assembly drawings, he wondered how the subcontractors are being informed with regard to the attaching parts. Mr. Isbrandt and Mr. Johnson informed the Air Force and Mr. Berthiaume of the procedures and pointed out how the attaching parts are incorporated into the engineering release system and how the subcontractors are notified of all parts that are to be manufactured and assembled.

*Tool control department.*—Colonel Cleveland inquired as to whether the tool control department at K-F is organizationally similar to the tool department at FAD. H. R. Smith inquired the reason the question was being asked. Mr. Berthiaume reviewed the sequence and functions of the tool control department at Hagerstown and stated that it appeared to him that there was no provision in the tool control department, as he understands the procedure in the tool control department at K-F, to bring about precautionary measures from releasing tools to the shop that are not ready for production. Mr. Harvey Smith assured the Air Force representatives that no tool is released to the shop until it is ready and such tool is required in the process of manufacture. Mr. Smith further pointed out that undoubtedly at this stage of the operation there are many items and procedures that do not conform with the intent and the practice that is contemplated to be used in the manufacture of the C-119 program. He also indicated that it must be recognized that K-F is at this time in the throes of a sizable program and naturally, the procedures are not operating as smoothly as in a shop that has been tooled and in production for some time.

*Tool accountability.*—Colonel Cleveland inquired whether the accountability file for tools is in accordance with Air Force specifications. Mr. Harvey Smith



stated that it was in accordance with specifications and Captain Gorman corroborated his statement, informing the group that K-F has established procedures which have been approved by him.

*Operation sheets.*—Colonel Cleveland stated that the operation sheet that is being used by K-F in connection with the C-119 program appeared to him complex and cumbersome. He indicated it had been brought to his attention that there are many unrelated items on the operation sheet that have no direct connection with the manufacture of the part. Then Mr. Berthiaume stated that the system appeared to him such that there could be 2 identical tool numbers for 2 separate tools to make different parts. Mr. Craig reviewed the various items on the operation sheet, as to where they will be used and how they will be used and he informed the Air Force representatives that the procedure followed is very similar to the automotive procedure and he assured the Air Force representatives that this condition of duplication of part number on two tools could not happen, since parts, when they change, although the numbers may remain the same, the "change letter" differentiates the parts and accordingly the tool number is changed.

*MCR procedure.*—Colonel Cleveland inquired as to why the MCR procedure as set up is different insofar as handling of engineering and procurement, etc., from the procedure set forth for regular production items. Mr. Smith stated that this is not necessarily so and he explained the function of the MCR board, which in reality is a "change board", as used in the broad sense in the aircraft industry. Mr. Berthiaume pointed out that the handling and incorporation of MCR's are ordinarily handled through the production engineer or the division head and he questioned the advisability of having an MCR board ascertain the effectivity of incorporation of parts and production whose members are not departmental or divisional heads. Mr. Hallett commented that basically, the Fairchild organization and the K-F organization are different insofar as philosophy of procedures and responsibility are concerned. Mr. Hallett further stated that it is the basic organizational philosophy of K-F to delegate responsibility and in the event such responsibility is not handled properly, then replacements are made. It is not the thinking of K-F management that all matters be cleared through departmental and divisional heads.

*Tool inspection.*—Colonel Cleveland inquired as to the procedure with regard to inspection of tools and parts. Mr. Smith informed Colonel Cleveland and Air Force representatives that the tooling is preliminarily inspected and then later parts off of such tooling are inspected by K-F inspection department and at that time the tool and the part are released for production.

*Release of technical data to manufacture.*—Colonel Cleveland inquired whether the manufacturing departments obtain operation sheets, blueprints and the latest engineering information with regard to manufacture. Mr. H. R. Smith informed the group that as soon as information is obtained it is transmitted through the regular system of distribution and prints, operation sheets, technical information, etc. are furnished to manufacturing departments.

*Blueprints with EAI attachments.*—Colonel Cleveland inquired what is the normal delay between the issuance of the EAI and the actual attachment to the blueprint on which subject EAI is to be used. Mr. Isbrandt stated that the present and normal lag is about 5 days and it is anticipated in the near future that such attachments to the blueprints can be made within 24 hours. Mr. Firman inquired of Mr. Marts whether the procedures with regard to handling the blueprints are satisfactory. Mr. Marts informed the group that he had reviewed the procedures with regard to handling blueprints, EAI's and technical information and he has approved such procedures and in his opinion they are satisfactory.

*Status of MCR's.*—Colonel Cleveland inquired as to the status of the configuration of the airplane and the incorporation of MCR's and whether the specification has been formally agreed with regard to the C-119 airplanes. Mr. Isbrandt reviewed the events that have transpired with regard to the configuration of the airplane and the specifications thereof. He informed the group that originally the airplane that K-F was to build was Fairchild No. 10450. He informed the group that in a meeting that was held between K-F and Air Force representatives, with Fairchild personnel attending, on August 9 at Wright Field, it appears now that K-F will build the configuration of the airplane No. 10574. The "I" specification dated May 14 is going to be revised as an "I" specification as of August 13, incorporating all MCR's and the configuration of the airplane that is to be built by K-F. Mr. Isbrandt further commented that it may take as long as 10 days to 2 weeks before such a specification becomes available. Colonel Cleveland then stated that he would like to review the MCR's that are still in an open status. These are as follows:

- MCR 193. Fuselage, beam, tied to skin. The engineering information will be available on August 8 from Fairchild.
- MCR 223. Hydraulic gear. Engineering information was released on August 8. Mr. Isbrandt stated that he had already released the information to manufacturing and procurement. Mr. O. E. Johnson stated that the delivery for hydraulic gears was promised in November and if the fuselage is to be moved from station to station, some provision must be made for obtaining a hydraulic gear. After some discussion it was agreed that diversion be made from spares from Wright Field and the property accountability officer at Willow Run to take cognizance over such a temporary loan until such time when K-F can obtain hydraulic gears.
- MCR 224. Landing gear up lock. No problem.
- MCR 259. 3350-85 engine installation does not appear to be satisfactory from a production installation viewpoint. Colonel Nielson informed the group that it was his understanding that from the first 5 R-3350 engines which are to be diverted to the C-119 program, 2 have been allocated to K-F and the remaining 3 to Fairchild, with promised delivery dates of September 30.
- MCR 278. Torque arm yoke. No problem.
- MCR 287. Ditching hatch. No problem. Any rework can be accomplished anywhere along the line.
- MCR 288. AN-R27 antenna installation. Mr. Isbrandt informed the Air Force representatives that the production of airplanes is such that concurrently USAF airplanes and MDAP airplanes are being manufactured, with the result that the R27 and R3 installations must be made on the airplane. Mr. Berthiaume stated that he will provide harnesses and people for installation of these items at Willow Run.
- MCR 290. Ignition analyzer. Engineering information shipped August 8.
- MCR 296. Elevator control locks. This is an electrical item and still to be completed. Mr. Isbrandt stated that he had received the engineering information but it has not as yet been released.
- MCR 309. Reinforcement of prop area. No problem.
- MCR 332. Rear cargo door hinge. Colonel Cleveland informed that this MCR requires AMC approval.
- MCR 337. Glide path receiver. This is a wiring item and FAD is to assist in installation and furnishing of parts.
- MCR 343. Emergency radar gear. Requires AMC approval.
- MCR 522. Safety belts. These are GFP items and were shipped on August 8.
- MCR 346. Vertical tail fin. Requires AMC approval.
- MCR 346-2-4. To go into airplane No. 15.
- MCR 225. Wing flap actuator. Mr. Berthiaume to check to determine status. He stated FAD would not manufacture but would buy from some vendor.

Colonel Cleveland inquired whether there were any other subjects that anyone wished to discuss at this time. Mr. H. R. Smith inquired as to whether the purchase order for the electrical test equipment and panels has been approved by Lieutenant Westlund. Colonel Cleveland stated that the electrical test equipment and panel is not incorporated in the technical assistance agreement and does not fall within the scope of that agreement, consequently, KMC must procure such equipment for themselves. Colonel McDuffee inquired as to why the purchase orders are being held. Lieutenant Westlund stated that the language in the purchase orders indicated that consulting services were being hired for the purpose of installation and making the electrical test equipment and panels. After considerable discussion it was agreed that Lieutenant Westlund will approve the purchase orders since such purchase orders are essentially to design and build electrical test equipment that is required in connection with receiving inspection.

Mr. Johnson inquired whether it would be possible to coordinate and review the entire MCR status with regard to stop-work orders and unshipped parts for 14 airplanes. Mr. Berthiaume is to check with Fairchild and inform KMC representatives as to the date and time for such review.

*Shipping of excess tooling to Chicago.*—Mr. Firman informed that the Air Force office at Willow Run has received instructions that the shipment of tooling to the Fairchild Chicago plant is to be handled on the same basis as the shipment of machine tools. This necessitates GBI processing, etc. After some discussion it was agreed that the shipment of tooling does not conform with shipment of machine tools and Colonel McDuffee agreed to handle the matter at Wright Field.

and obtain an amendment to the letter so that local Air Force office can proceed on the basis of shipping tools rather than on the basis of shipping tools which are to be considered as machine tools.

*Schedule II items.*—Mr. Patyrak pointed out that KMC still does not have an approval under schedule II items to the Appendix Facilities Contract No. AF 33(038)—18485 in the amount of \$691,250 which was submitted on June 29, 1951. Colonel McDuffee informed KMC representatives that he will look into the matter and see what can be done, but his preliminary information indicates that this approval should be forthcoming within the next few days.

MINUTES OF MEETING HELD AT FAIRCHILD AIRCRAFT DIVISION, HAGERSTOWN,  
MD., FRIDAY, DECEMBER 21, 1951

Those in attendance were as follows:

Mr. Orrin Berthiaume, assistant general manager, Fairchild Aircraft Division  
Mr. Lou Fahnestock, director of engineering, Fairchild Aircraft Division  
Mr. Paul Frizzell, vice president, Fairchild Engine & Airplane Corp.  
Mr. Lee Firman, chief, quality control section, AFPR, Fairchild Aircraft Division  
Lt. Col. S. E. Cleveland, AFPR, FAD, Fairchild Aircraft Division, field project officer  
Capt. Kilburn Lewis, chief, production section, AFPR, Fairchild Aircraft Division  
Mr. Glenn Bailey, contracting officer, USAF  
Maj. Ray C. Ulrey, AFPR, Kaiser Manufacturing Corp.  
Capt. H. W. Smith, chief, production section, AFPR, Kaiser Manufacturing Corp.  
Mr. Ralph Isbrandt, chief aircraft engineer, Kaiser Manufacturing Corp.  
Mr. Steve Girard, vice president, Kaiser Manufacturing Corp.  
Mr. H. V. Lindbergh, vice president, Kaiser Manufacturing Corp.

The meeting was opened by Mr. Girard who stated that the meeting was called to develop some of the information required to answer Major Ulrey's request regarding a realistic schedule of airplane production at Willow Run. The specific information to be obtained from this meeting concerned the continuing flow of engineering information from Fairchild. Mr. Girard stated that Kaiser Manufacturing Corp.'s first airplane was being delayed because of the lack of finality of engineering data. He further stated that EAI's were being received by Kaiser Manufacturing Corp. at an average rate of 200 per week. (Figures have been published since the meeting which show that beginning with September 3, 1951, the exact average per week has been 195.) Of those 200 EAI's per week, 50 percent physically affect detailed parts and of this 50 percent, many affect the contractual requirements for Kaiser Manufacturing Corp. ship 101. At this point, Mr. Isbrandt, chief aircraft engineer for Kaiser Manufacturing Corp., stated that the flow time for an EAI in Kaiser Manufacturing Corp. engineering was 2-3 days. He further stated they usually require 14 days for the screening, checking, and incorporation of an EAI and that additional time was required when the change involved a subcontractor. However, these changes have not critically affected the subcontractors as much as they have affected Kaiser Manufacturing Corp. to this date.

A general discussion of EAI's ensued and Kaiser Manufacturing Corp. stated that EAI's were coming through which affected those MCR's assigned to Kaiser Manufacturing Corp. C-119 Airplane No. 101, but which EAI's were categorized by Fairchild engineering as miscellaneous EAI's. It was further stated that under the technical assistance agreement in existence between Fairchild and Kaiser Manufacturing Corp., Fairchild was obligated to provide parts and sub-assemblies for those engineering changes which referred to or were part of an MCR contractually required for incorporation in KF 101 and that Fairchild's classifying these as miscellaneous EAI's might affect Fairchild's performance in connection with this obligation. Mr. Fahnestock of Fairchild engineering stated that it was the intent of his engineering department to reference as EAI to an MCR whenever applicable, but that in many cases, this was referred to as continued engineering rather than the reference mentioned above. Mr. Isbrandt then stated that out of 5,000 EAI's received by Kaiser Manufacturing Corp., 2,500 had been screened with effectivities established. The remaining 2,500 had been effectively reduced to roughly 390 MCR's at the time of the meeting. It was further stated at this point that 2 or 3 sets of different hydraulic mockups had been sent to Kaiser Manufacturing Corp. and that these were not yet finalized. Colonel Cleveland then proposed that in the future, all EAI's be categorized, with the responsibility for identifying the mandatory category EAI's to rest with

Fairchild Aircraft Division. This was generally agreed to and Mr. Isbrandt and Mr. Fahnestock were to set up a mutually agreeable set of categories to consist, in general, of: (1) Those EAI's whose incorporation into Kaiser Manufacturing Corp. 101 would be mandatory; (2) those EAI's whose incorporation into Kaiser Manufacturing Corp. 101 was required by Fairchild because of a design pride in turning out a high quality article; and (3) those EAI's which Kaiser Manufacturing Corp may schedule on a regular effectivity basis.

It was then stated by Mr. Fahnestock in response to a question by Mr. Girard that EAI's would continue to flow pertaining to Kaiser Manufacturing Corp. 101 for at least the 2 weeks following the meeting and possibly farther into the future depending upon the performance of Fairchild's Airplane 10575 which is Fairchild Aircraft Division's first "F" configuration airplane. It was then decided that Kaiser Manufacturing Corp. would proceed to categorize and set effectivities for the backlog of EAI's which they have at present, and Kaiser Manufacturing Corp. would request help from Fairchild Aircraft Division where a clear decision cannot be made. Fairchild agreed that they would start immediately to categorize all future EAI's. Kaiser Manufacturing Corp. then stated that on those few new MCR's assigned after November 13, 1951 which became effective on Kaiser Manufacturing Corp.'s first 14 C-119 aircraft, Kaiser Manufacturing Corp. would survey their facilities for incorporation of such MCR's and if extreme difficulty is encountered, they may contact Fairchild for help, and Fairchild agreed to provide this help if at all possible. (Note: There were approximately 7 or 8 such new MCR's under consideration during the period of November 13, 1951 through December 21, 1951.) At this point, it was stated again that wherever EAI's refer to an MCR assigned to Kaiser Manufacturing Corp. No. 101 on or before November 13, 1951, and which MCR is a part of a Kaiser Manufacturing Corp. contractual obligation to the Air Force for the first C-119 airplane, Fairchild would furnish parts for the first 14 airplanes. Wherever EAI's do not specifically refer to an MCR as aforementioned, Kaiser Manufacturing Corp. would explore their own resources and could then contact Fairchild for help. Where gross errors in referencing an MCR occur, Mr. Fahnestock stated that he would review the EAI and may refer it to an MCR so that parts will be furnished. This resulted from a rehash of an earlier statement by Kaiser Manufacturing Corp. that Fairchild was furnishing certain EAI's which affected MCR's, but which EAI's were categorized as miscellaneous.

The meeting then adjourned with a statement by Colonel Cleveland that more meetings of this nature should be held in the future whenever a need arose for them.

H. W. SMITH,  
Captain, USAF, Chief, Production Section.

KAISER MANUFACTURING CORP.,  
Willow Run, Mich., January 2, 1952.

Air Force Plant Representative, Kaiser Manufacturing Corp., Willow Run, Mich.  
Attention: Maj. Ray C. Uray.  
Subject: Delivery of C119-F Aircraft Against Supply Contract No. AF33(038)-18481.

You have requested that the contractor provide you with its estimated actual delivery schedule for C119-F aircraft as against the contract delivery schedule.

Based on a thorough analysis of all factors, it appears inevitable that actual delivery dates for the first group of aircraft to be assembled from Fairchild parts will be delayed beyond contract dates. The primary reasons for the delayed delivery of aircraft are as follows:

1. Incomplete engineering information applicable to the first and all successive aircraft;
2. Substantially delayed receipt of priming fabricated parts and assemblies for the first 14 aircraft;
3. Substantially delayed receipt of Government-furnished equipment, particularly engines;
4. Substantially delayed receipt of subcontractor furnished items, particularly landing gear.

As a result of the effect of these factors, which are in the main beyond the control of Kaiser Manufacturing Corp., it is now estimated that we can meet the following C119-F delivery schedule:

*C-119 delivery schedule*

1952	Months	Cumulative	1952	Months	Cumulative
February.....	1	1	June.....	10	25
March.....	2	3	July.....	15	40
April.....	5	8	August.....	19	59
May.....	7	15	September.....	22	81

The above schedule on aircraft Nos. 101 through 115 is predicated on the following:

On December 29 there were in our possession approximately 1,600 EAI's to screen, of which we estimate that 60 percent will be effective on ship 101. Of this 60 percent, a large majority will be found to be already in effect in No. 101. We believe that we can screen 100 EAI's per day, completing the screening to determine effectivity of the existing EAI's on January 18. This allows 10 days for Kaiser Manufacturing Corp. to procure fabricated parts from Fairchild or to procure raw materials, fabricate, and install the last EAI's screened, which must be effective on ship No. 101.

This schedule is therefore based on any mandatory EAI's received by Kaiser Manufacturing Corp. after December 28 being handled as engineering deviations or as modifications to be performed by Kaiser Manufacturing Corp. after official acceptance on aircraft Nos. 101 through 115. Kaiser Manufacturing Corp. has received the following EAI's in the last 11 weeks (in addition to those received prior to that time), so that it has been impossible to keep the production operations current with engineering information.

*EAI's received at Willow Run*

Sept. 23 to Sept. 30.....	153
Sept. 30 to Oct. 7.....	213
Oct. 7 to Oct. 14.....	121
Oct. 14 to Oct. 21.....	145
Oct. 21 to Oct. 28.....	245
Oct. 28 to Nov. 4.....	145
Nov. 4 to Nov. 11.....	238
Nov. 11 to Nov. 18.....	199
Nov. 18 to Nov. 25.....	188
Nov. 25 to Dec. 2.....	292
Dec. 2 to Dec. 9.....	225
Total.....	2,164
Average.....	195

Due to this situation, an arrangement was requested by Kaiser Manufacturing Corp. to screen EAI's at Fairchild, which arrangement is now in effect in accordance with the attached memo from Fahnstock to Berthlaume, of which Kaiser Manufacturing Corp. was furnished a copy. In the meeting of December 22 at which this arrangement was worked out, Fairchild representatives advised that testing of aircraft No. 10575 would develop additional EAI's, but it was not possible at that time to forecast definitely the quantity, category, or time of releasing of resulting EAI's. Therefore, such EAI's have of necessity been disregarded in preparing the above schedule on ship 101.

Today the material and procurement situation on the first 14 ships, which include the priming parts from FAD, is generally in good shape. However, the lateness of FAD parts to Willow Run and the lateness in receiving engineering information that in turn necessitates further procurement of long lead-time items has materially affected progress of Kaiser Manufacturing Corp.

The nine ships of detail parts were originally scheduled to be shipped from Hagerstown as follows: 2 shipsets, April; 3 shipsets, May; 4 shipsets, June.

On November 5, 1951, Kaiser Manufacturing Corp. representatives met with USAF and FAD personnel at Hagerstown to schedule the remaining 535 items that were unshipped, which were in effect several thousand parts. These parts were given top priority by FAD, and today the list is down to less than 50 items. The above 535 items are nearly 100 percent items that were affected by MCR's and it was the lateness of this engineering information, which was originally promised on May 15, that so seriously affected this program.

Engines were scheduled to be received in July for Kaiser Manufacturing Corp's, Aircraft No. 101. The engines for No. 101 were actually received on November 13 and December 1. There were a total of four engines received as of December 28. To maintain a satisfactory operation on engine preparation and installation, Kaiser Manufacturing Corp. should have a total of 18 engines on hand at present. Therefore, even if other controlling delay factors had not been in existence, engine deliveries have been delinquent so as seriously to delay the work. This is also true of other Government-furnished equipment, but engines have been the major factor.

Delivery of landing gear has been and probably will be a delaying factor. Willys-Overland, a subcontractor selected by the Air Force for Kaiser Manufacturing Corp., continued to promise delivery of landing gear for December 1951, until November 1951, at which time their schedule was revised to March 1952. Temporary gear will be used until an emergency order can be filled by Cleveland Pneumatic. Forty-eight shipsets have been promised by Cleveland Pneumatic to fill the Willys-Overland delay, but the first set for No. 101 has not yet been received complete. The delay in landing gear has definitely been a delaying factor. To maintain a satisfactory landing-gear preparation and installation operation we should have eight complete sets of landing gear in our possession now.

As a result of the delaying factors enumerated herein, aircraft No. 101 will be approximately 60 days late out of the factory door.

At the present time we are unable to obtain reasonably consistent historical data from which to estimate acceptance test time on the first production airplane. However, based on the above premise, we believe that the acceptance of ship No. 101 can be completed in 1 month from out of door, provided Fairchild does not issue MCR's and EAI's resulting from flight test of their No. 10575, which become mandatory on No. 101.

Completion of engineering information, receipt of fabricated parts from Fairchild, and receipt of Government furnished equipment are definitely controlling factors in production of the first 14 ships, since availability of labor and completion of sub and major assembly fixtures have been far ahead of completion of engineering data on assemblies going into the fixtures.

The controlling factor on schedule of airplanes to be fabricated entirely by Kaiser Manufacturing Corp., starting with ship No. 116, also will be completion of engineering information in order to finalize completion of fabrication tools. After that point is reached, the controlling factor will be tool tryout, since the delay in engineering data has caused a definite bunching up of tools for fabrication tryout.

At the present time, it is not possible to state that the estimated delivery schedule past ship No. 115 is considered realistic, since we have not evaluated the effect of reaching a stopping point in the engineering data, or the effect of utilizing outside assistance on tool tryout, both matters which have become possible just recently. However, within 1 month it appears probable that engineering information from Fairchild will become sufficiently stabilized so that the schedule can be accurately forecast past ship No. 115.

Very truly yours,

KAISER MANUFACTURING CORP.,  
T. A. BEDFORD,  
*Vice President, Manufacturing.*

cc: Messrs. Edgar F. Kaiser, Mike Miller, John Hallett, J. F. Reis, C. M. Hollis, S. A. Girard, C. P. Bedford, Hal Babbitt, John Tacke, John Banks, Harvey R. Smith, J. H. Woodhead, Webb Wilson.

Following is a copy of a memo dated December 26, 1951, reference EM-1643 from Mr. L. Fahnestock of Fairchild to Mr. O. A. Berthiaume of Fairchild on the subject "Identification of EAI's for Kaiser Manufacturing Corp. guidance":

"As a result of the meetings with the Kaiser Manufacturing Corp. management and Air Force people on Friday, December 21, it was agreed that we would assist them in establishing the required effectivity for EAI's issued by identifying them in accordance with a priority category.

"Accordingly, we have resolved the following system.

"All EAI's issued, effective December 26, will carry a letter in the corner of a title block as per the attached sample. The letter will identify the category of the EAI as follows:

"A. Any item which is considered to be a necessity on Kaiser Manufacturing Corp. 101 and subsequent airplanes because it reflects in the proper functional operation of the aircraft or one of its devices or is necessary as a matter of safety of operation.

"B. Items which are desirable for effectivity on Kaiser Manufacturing Corp. 101 and up but not falling in category A may be adopted on the earliest possible effectivity. This will involve such things as improvements in design to bring about ease of maintenance or improved service conditions which may in some instances require retrofit kits for those Kaiser Manufacturing Corp. airplanes and/or Fairchild airplanes on which they were not incorporated prior to the effectivity point.

"C. Items which are facilitation or improved designs which can be scheduled on a regular effectivity basis.

"D. Items for which the effectivity is not of any importance since they simply clarify the engineering data such as next assembly callouts, bill of material corrections, etc.

"These identifications are to assist Kaiser Manufacturing Corp. in knowing the urgency of all EAI's being furnished them so as to establish a cutoff point for completion of their early airplanes. The codings are not intended at this time to be used by the Fairchild organization since we have already routine handling of such matters through change control.

"We will begin marking EAI originals released as of December 26, and subsequent, in accordance with the above, but it was agreed during the meeting that we would furnish Kaiser Manufacturing Corp. with lists of the clarifications per the above coding covering all EAI's shipped to them beginning with the second originals mailed on December 21, and likewise handle any others shipped since December 21, but not coded at the time of release."

KAISER MANUFACTURING CORP.,  
Willow Run, Mich., February 7, 1952.

To: AF Plant Representative, Kaiser Manufacturing Corp., Willow Run, Mich.  
Attention: Lt. Col. Ray C. Ulrey.

Receipt is hereby acknowledged of your letter of February 5, 1952, transmitting a copy of a letter dated February 4 from Mr. S. C. Solomon, resident auditor, USAF.

Your letter raises two points in regard to detail tools, which have been procured by the contractor for the C-119 and C-123 aircraft. You state that the tooling received to date has not been inspected and you request that it be inspected and vendor responsibility be determined prior to tryout and rework. You also request that a procedure be established to insure that all tooling received in the future will be inspected promptly to determine vendor responsibility.

I would like to take up the second item of your letter first. Attached hereto is a rough draft of an aircraft procedure which covers the entire subject of tryout and rework of project tooling for the C-123 airplane. As this procedure has been written in recent weeks, it has been put into effect, and in most instances is now applicable to C-123 detail and assembly tools. We believe that this procedure, when officially established and complied with, will satisfactorily fulfill your requirements in regard to tool inspection and determination of vendor responsibility.

While the attached aircraft procedure is not in the final form, as it has not been finally reviewed by all departments concerned, it can be reduced to a final document in a very short time. However, before the procedure is officially installed, we will appreciate receiving a letter from you advising whether or not the Air Force considers this procedure to be adequate for the purpose, and whether this procedure has Air Force approval.

In regard to the first point you have raised, that of detail tooling for the C-119 aircraft, this has been under consideration by this office for some time. The problem is somewhat complex, and, consequently, a rather detailed consideration has been given to it, which is outlined here below.

In presenting our reply and recommendations, I think it best to review briefly a few important facts. The present latter contract, agreed to by both the Air Force and Kaiser Manufacturing Corp., set forth a schedule which was predicated on adopting mobilization techniques. The tooling program was to be accomplished by dispersing the work through many Detroit shops, whose experience, except for the war years, had been largely automotive. To handle such a program, we rapidly assembled a field organization of tool engineers and expeditors to coordinate the work of over 70 tool-building shops. A tool Design Standard Manual, to reduce the necessity for expensive and time-consuming detail design, was prepared and distributed. Fairchild Standard Design Data was distributed, although not completely, due to our inability to get this data in reproducible form.

In reviewing the problem of inspection of tools from outside vendors, we will discuss first the fabrication tools consisting of router blocks and form blocks, since these require the most work in tryout. Generally the sub and major assembly fixtures have been adequately inspected. Of the detail tools, the punch press tools, the machine tool fixtures and tooling are of uniform quality and present relatively little inspection, tryout, and vendor responsibility problems.

During the tool-building period, many problems peculiar to this situation confronted production engineering, some of which had a general effect on tool quality and degree of tool completion. For instance, while it is customary to build up a chart of springback, developed by experience on form blocks for use in building new tools, this information is not available until experience on the specific presses used can be recorded. It was found that data in use at Fairchild for standardizing lightening holes and beads required clarification. "Some tools for which Fairchild tool drawings were available had to be built from other information to suit contractor's equipment, and in some cases to reduce the requirement for skilled operators not available to the contractor."

Many material substitutions were necessary to expedite the work. Tempered masonite, the common material for router boards and form blocks, was unavailable due to a strike in that plant. The contractor substituted plywood, fiber, and untempered masonite, knowing that such materials would have to suffice until better materials became available. Three carloads of tempered masonite were acquired through vigorous expediting, but this quantity fell far short of our requirements.

The fact that the work was being performed concurrently in many different locations made it necessary to provide duplicate templates. To prevent holdups, these templates were duplicated in many different shops where suitable inspection facilities were unobtainable. All of these things have a certain effect on tool completion and quality, and though they are certainly undesirable, we believe that they would be present in about this same degree in any program of similar complexity and timing. Each solution was arrived at in the most expeditious manner, which was required to meet the contract schedule, which contains a very fast acceleration period.

Several times during the tool-building phase the inspection problem was examined. After considering the circumstances, partially developed above, we decided that to assess definite responsibility before tryout would be not only exceedingly difficult but expensive. Our decision to omit inspection until tryout was also affected by a very definite shortage of qualified tool inspectors, who, during this period, were thinly spread over the major assembly and subassembly fixtures then being delivered and erected. A recruiting program to alleviate this shortage was commenced early in December, the results of which are now being felt.

At present the situation on form block and router block tools is as follows: We have now in the plant approximately 7,900 individual fabrication tools representing probably 98 percent of our requirements. Of these, about 25 percent have been tried out, leaving approximately 5,900 tools to go. These are being pulled from racks and put through an inspection checking and tryout operation at a rate of about 100 per day.

1. Rework is work performed in incorporating an engineering change resulting from an EAI or an MCR.

2. Repair is work performed on a tool to repair breakage or wear through use or handling.

3. Rebuild is work performed on a tool of a major nature resulting from a change in method of operation or material but not involving a tool number change.

4. Tryout is any work required to make a completed tool produce an acceptable part. Tryout frequently includes repair, rebuild, and production time.

To comply fully with your request for complete inspection and assignment of responsibility, the following steps might be necessary:

1. *Visually inspect tool for workmanship and conformance with good shop practice and design standards.*—This element of inspection is feasible and fairly well defined.

2. *Inspect to template.*—This inspection increment is relatively simple, but the assignment of responsibility difficult. As you know, we are reinspecting our templates and correcting any errors found ahead of tool inspection. As previously stated, a good many templates were duplicated in the field to expedite the work and the identity of such duplicates and where they were used is not available.

3. *Inspect to tool design drawings.*—This can be accomplished where tool designs exist. We estimate that on the fabrication tools approximately 10 percent are



covered by design drawings. Some of these tools will not conform with the drawing as a result of changes directed by the responsible tool engineer who ordered such deviations in the interest of simplifying the operation or adapting it to our equipment.

4. *Inspect to operation sheet and/or tool and facility order.*—This inspection would determine whether the tool would perform all of the elements of the operation as specified on the operation sheet or more elaborately on the tool and facility order. Little vendor responsibility can be proven due to the method we employed to perform and correct process engineering while tools were being built. In many cases tool engineers transmitted change orders verbally through expeditors to the build shops in order to make changes consistent with tool delivery schedules and with the flow of engineering changes.

5. *Inspect for material compliance.*—We believe that such an inspection is possible but know of no cases where vendor responsibility could be assessed. Any substitutions, as stated above, were made in the interest of expediting the work. The substitutions for tempered masonite will have little effect on tryout costs, but will probably involve replacement with the more durable tempered product later on in the program. Other known substitutions are believed to have resulted in slightly higher material costs in some cases, but are not believed to be detrimental to tool quality.

A tool inspection and tryout procedure for C-119 detail tools is now being written, which will be completed Thursday, February 14. This procedure details the method by which all detail tools are inspected, tried out, and put into work by index sequence (including not only fabrication tools, but all detail tools). The procedure is now in effect on the floor, although it has not yet been published. This procedure does not inspect and determine vendor responsibility at the vendor's plant, as does the C-123 tool inspection and tryout procedure previously referred to. Vendor responsibility is determined by inspection as a part of tryout.

Determination of vendor liability is based upon determining if the vendor failed to perform the work in a manner consistent with good shop practice, and consistent with the design standard book furnished to him in accordance with "Visual inspection," paragraph 1, above. Where tool inspection determines that the vendor failed in these respects, the vendor responsibility will be established, the necessary work to bring the tool up to standard will be specified, either by work order in the contractor's plant, or by purchase order at a tool tryout vendor, or by no charge order by return to the vendor's plant. The responsible tool build vendor will be notified that the tool furnished by him has been inspected as vendor-responsible and a work order established for his account, costs for which the contractor will use his best efforts to collect.

It should be pointed out that, in many cases, it will be extremely difficult to prove that what appears to be poor workmanship is not the result of incomplete information, incorrect information, or changes ordered in the tool as a result of the extreme state of confusion emanating from the condition of engineering information and flow of engineering changes from the design agent (Fairchild Aircraft Division).

It will be impossible to return all build vendor-responsible tools to the vendor, since this would require a delay of putting the tools in work in excess of a month, and the handling and shipping costs, in some cases, would be in excess of the costs of performing the work necessary to conform to good shop practice and to the design standards.

The inspection work necessary to determine build vendor responsibility is an integral part of the inspection work which must be performed to schedule the tools through rework for engineering changes, rebuild, and for tryout to produce parts for the first time. It was impossible to perform the major tryout operation until engineering changes flowing from the design agent were brought under sufficient control, so that some semblance of order could be maintained. The contractor's decision to perform the determination of vendor responsibility at the same time as the other integral tool inspection is more efficient than attempting to perform the work separately, and, in fact, could not have been done otherwise with the quantity of tool inspectors available. While it might have been easier to establish vendor responsibility by an earlier inspection for that purpose alone, it must be pointed out that it would not have been possible to have withheld payments to vendors until the available inspectors completed the work. On the other hand, a general review of the tools being received indicated some time ago that work of questionable quality was confined to a relatively small group of tools, namely from blocks and router blocks—a type of work in which the vendors

had the least recent experience. As a matter of fact, many tools were inspected as satisfactory when received, but no records exist of this inspection.

The superintendent who is in direct charge of tool inspection and tryout was with Fairchild Aircraft Division 11 years on similar work. One very important difference between the situation at Willow Run and at Hagerstown is that the contractor is requiring here a much more complete tool and a more extensive tryout. The reason for this is that the production rate at Hagerstown and the length of time it has operated permit sufficient employees to be maintained who are skilled at hand work. Consequently, Fairchild Aircraft Division operation sheets frequently call for "hand work," where at Willow Run employees with such types of skills are not available, nor could sufficient be trained to meet Willow Run schedule requirements as economically as the tools can be carried to a high degree of completion through tryout. This course concentrates the difficulties in the tool tryout period, but we believe it will lessen the amount of hand work, scrap, and rework of parts necessary later on, and will enable us to maintain a higher quality standard than would otherwise be possible.

Unfortunately this written procedure covering the C-119 tool tryout and inspection will not be completed until next Thursday. It will be forwarded to you for review at that time.

We hope that Air Force representatives will find the procedures for the C-123 and the C-119 satisfactory. If you do not find them satisfactory in all respects, we will appreciate receiving an early reply.

In the meantime, we will put these procedures into effect, and we invite you to make any checks you consider necessary as to our compliance with these procedures, after they have been in effect long enough to begin functioning.

In regard to outside vendors performing tryout work, which we discussed January 31 with you as the basis for the tool completion schedule from which the latest "downward planning" schedule was formulated, we would appreciate receiving an early approval to the purchase orders we have submitted so that we may proceed in our efforts to comply with that schedule.

Very truly yours,

KAISER MANUFACTURING CORP.,  
T. A. BEDFORD,  
*Vice President, Manufacturing.*

cc: Messrs. John Hallett, S. A. Girard, J. F. Reis, E. R. Jones, C. M. Hollis, R. J. Jaspersen, Sid Hailey, J. F. Greenwald, John Tacke, John Banks, H. R. Smith, S. C. Solomon, Capt. H. W. Smith, Capt. F. P. Bretney.

EXTRACT FROM MEMORANDUM DATED FEBRUARY 14, 1952, FROM JOHN HALLETT (K-F) TO AIR FORCE PLANT REPRESENTATIVE AT WILLOW RUN (THE FULL TEXT OF THIS MEMORANDUM IS ATTACHED TO DOCUMENT NO. 17 PLACED IN THE RECORD BY THE COMMITTEE'S STAFF

"In addition to the factors always incident to the initiation of a new program, certain other causes beyond our control have contributed to the manpower situation at the Willow Run plant. Among these are the following:

"1. The failure of Fairchild Engine and Airplane Corp., the design agent, to furnish technical information required for the completion of tooling and the initiation of production in accordance with schedules.

"2. The numerous changes made by such design agent in the technical information furnished by them, which changes necessitated delays in our tooling program."

EXTRACT FROM REPORT DATED FEBRUARY 25, 1952, FROM SIDNEY C. SOLOMON, USAF RESIDENT AUDITOR AT WILLOW RUN TO AUDITOR GENERAL, USAF

"It appears that the major portion of the loss due to obsolescence can be attributed to the following factors:

\* \* \* \* \*

"b. Lack of effective cooperation and assistance from the design agent (Fairchild Aircraft Division) under the technical assistance agreement."

EXTRACT FROM AIR FORCE MEMORANDUM OF TELEPHONE CONVERSATION ON  
MAY 5, 1952, BETWEEN GENERAL BRADLEY AND EDGAR KAISER

"K. [Edgar Kaiser] That thing is starting to roll, and I think it is going to start to produce something for you now. I told him that we had troubles with this Fairchild thing and you made a deal with me when we made the Chase deal to keep our mouths shut about the thing and I said, 'We didn't get the tooling drawings the right set until and I said we also have plenty of conversation going that doesn't want us to be good,' and I said 'We are beginning to roll and we're going to talk about it, and we want people to know that it is good and not all this monkey business that we've been hearing about.'"

EXTRACT FROM LETTER DATED DECEMBER 18, 1952, FROM EDGAR KAISER TO  
COMMANDING GENERAL, AIR MATERIEL COMMAND

"In surveying present as well as past operations, we believe consideration should always be given to the situation that arose as a result of the technical-assistance agreement. For instance, the detailed drawings furnished could not be checked for accuracy against the airframe drawings because the latter drawings were not up to date. Likewise, there were errors in other technical data furnished, as were as long delays in furnishing some of the drawings, and complete failure in other cases to give the required information. We believe that some of these occurrences were unavoidable. On the other hand, had the technical-assistance contractor expended as much effort in performing its agreement as it appears to have in connection with public releases and the building up of a record critical of Kaiser-Frazer, our task would have been greatly simplified."

EXTRACT FROM MEMORANDUM DATED JANUARY 12, 1953, FROM S. A. GIRARD  
(K-F) TO AIR FORCE PLANT REPRESENTATIVE AT WILLOW RUN

"The factors which resulted in having to maintain actual manpower approximately 2,600 employees below the earliest projection during phase A were as follows:

"A-1. During the period January 8 through February 6, 1951, the program was effectively strike-bound; first by a strike at FAD (January 8-27) followed by a series of wildcat stoppages which resulted finally in an authorized CIO strike at Willow Run (January 22-February 6). Although the strikebound period ostensibly lasted only a month, its effects manifested themselves over a considerably longer period.

"A-2. Tool design and engineering data, scheduled to be delivered to K-F on or before April 1, 1951, was not completely furnished until early 1952.

"A-3. Aircraft engineering data, scheduled to be furnished on or before April 1, 1951, was not completely furnished until December 1951.

"A-4. Priming parts, although delivered quite close to scheduled delivery dates, did not incorporate specified engineering changes whose effectivity had been spelled out for K-F's first production.

"A-5. The latent deficiencies included in the Omaha package were felt, to a greater or lesser degree, throughout the period covered by phase A.

"A-6. Concurrent with the above factors was the late delivery of both the landing gear and the engines; to say nothing of the need for corrective work on engines following their late delivery."

X